Indiana Public Retirement System

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

2015 COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2015

Actuarial Section

Indiana Public Retirement System

149 Introduction
150 Actuaries' Certification Letters
156 Summary of Funded Status
157 Analysis of Financial Experience
158 Ten-Year Schedule of Participating Employers

Public Employees' Retirement Fund

159 Historical Summary of Actuarial Valuation Results
160 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
165 Analysis of Financial Experience and Solvency Test
166 Schedule of Active Members Valuation Data
167 Schedule of Retirants and Beneficiaries

Teachers' Retirement Fund Pre-1996 Account

168 Historical Summary of Actuarial Valuation Results
169 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
173 Analysis of Financial Experience and Solvency Test
174 Schedule of Active Members Valuation Data
175 Schedule of Retirants and Beneficiaries

Teachers' Retirement Fund 1996 Account

176 Historical Summary of Actuarial Valuation Results
177 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
181 Analysis of Financial Experience and Solvency Test
182 Schedule of Active Members Valuation Data
183 Schedule of Retirants and Beneficiaries

1977 Police Officers' and Firefighters' Pension and Disability Fund

184 Historical Summary of Actuarial Valuation Results
185 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
188 Analysis of Financial Experience and Solvency Test
189 Schedule of Active Members Valuation Data
190 Schedule of Retirants and Beneficiaries

Judges' Retirement System

191 Historical Summary of Actuarial Valuation Results
192 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
195 Analysis of Financial Experience and Solvency Test
196 Schedule of Active Members Valuation Data
197 Schedule of Retirants and Beneficiaries

State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan

198 Historical Summary of Actuarial Valuation Results
199 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
202 Analysis of Financial Experience and Solvency Test
203 Schedule of Active Members Valuation Data
204 Schedule of Retirants and Beneficiaries

Prosecuting Attorneys' Retirement Fund

205 Historical Summary of Actuarial Valuation Results
206 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
208 Analysis of Financial Experience and Solvency Test
209 Schedule of Active Members Valuation Data
210 Schedule of Retirants and Beneficiaries

Legislators' Defined Benefit Plan

211 Historical Summary of Actuarial Valuation Results
212 Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions
215 Analysis of Financial Experience and Solvency Test
216 Schedule of Active Members Valuation Data
217 Schedule of Retirants and Beneficiaries

Introduction

Prior to July 1, 2011, the Defined Benefit retirement plans for public employees in the State of Indiana were administered by independent instrumentalities governed by separate boards of appointed trustees, including the Public Employees' Retirement Fund and the Indiana State Teachers' Retirement Fund. Legislation adopted in 2010 called for a consolidation of these entities, which began with the appointment of a joint Executive Director in May 2010, and resulted in the creation of the Indiana Public Retirement System (INPRS) effective July 1, 2011.

The funding methods used for the Defined Benefit retirement plans administered by INPRS are not governed by and do not conform to GASB Statement No. 67, so the actuaries prepare two actuarial valuations for each of the pension plans. One is an actuarial valuation used for financial reporting purposes that conforms to GASB Statement No. 67 as disclosed in the Financial Section. The second is an actuarial valuation used for funding purposes as disclosed in the Actuarial Section, which follows generally accepted actuarial principles and practice and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The actuarial methods and assumptions used to prepare the two actuarial valuations are nearly identical, with the primary difference being the method of valuation of the pension assets. For financial reporting purposes, the market value of the assets is used as of the fiscal year end. For funding purposes, a four (4) year smoothing of the gains or losses on the market value of assets is used for each year. Therefore, the amounts presented in the Actuarial Section may differ from the amounts presented for financial reporting purposes in the Financial Section.

There are two (2) actuaries providing the actuarial services for the eight (8) Defined Benefit retirement plans administered by INPRS as summarized below:

PricewaterhouseCoopers LLP

- Public Employees' Retirement Fund
- 1977 Police Officers' and Firefighters' Pension and Disability Fund
- Judges' Retirement System
- State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan
- Prosecuting Attorneys' Retirement Fund
- Legislators' Defined Benefit Plan

Nyhart

- Teachers' Retirement Fund Pre–1996 Account
- Teachers' Retirement Fund 1996 Account

Accordingly, the INPRS FY2015 CAFR Actuarial Section includes an Actuary Certification Letter from each actuary for the actuarial valuations prepared as of June 30, 2015.

pwc

October 29, 2015

Board of Trustees
Indiana Public Retirement System
1 North Capitol, Suite 001
Indianapolis, IN 46204

Re: Certification of the Actuarial Valuations of the Indiana Public Retirement System as of June 30, 2015

Dear Board of Trustees:

Actuarial valuations are performed annually for the Indiana Public Retirement System ("INPRS") defined benefit pension plans ("Plans"). The results of the June 30, 2015 actuarial valuations for all plans other than the Teachers' Retirement Fund are presented in individual valuation reports pursuant to the engagement letter between INPRS and PricewaterhouseCoopers LLP ("PwC"), originally executed on June 7, 2010, as amended through the date of this report. The reports are intended to provide the Board of Trustees ("Board") with information on the funded status of the Plans, development of the contribution rates, and certain financial statement disclosure information.

Under Indiana statutes, employer contribution rates and amounts, as applicable, are adopted annually for each Plan by the Board. The contributions are actuarially determined based on the funding policy, actuarial assumptions, and actuarial methods adopted by the Board. Contributions determined by the actuarial valuation become effective either twelve or eighteen months after the valuation date, depending on the applicable employer. Therefore, contribution rates and amounts determined by the June 30, 2015 actuarial valuation and adopted by the Board will become effective on either July 1, 2016 or January 1, 2017. If new legislation is enacted between the valuation date and the date the contributions become effective, the Board may adjust the recommended contributions before adopting them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

Financing Objectives and Funding Policy

In setting contribution levels, the Board's principal objectives have been:

- To set contributions such that the unfunded actuarial accrued liability ("UAAL") will be amortized over a period not greater than 30 years.
- To set contributions such that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that employer contributions be equal to the sum of the employer normal cost (which pays the current year cost of benefits accruing) and an amortization of the UAAL in equal installments.

Progress Toward Realization of Financing Objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements it should increase over time, until it reaches 100% if contributions equal or exceed the actuarially determined amount. The combined funded ratio for all Plans (excluding the Teachers' Retirement Fund) decreased by 2.7% from the preceding year to 84.3%, primarily due to changes in the actuarial assumptions pursuant to the experience study completed in April 2015, investment returns being less than the 6.75% assumed, and other adverse member experience.

Benefit Provisions

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2015, as set forth in the related Indiana statutes. There were no material changes in benefit provisions since the 2014 valuations.

Assets and Member Data

The valuations were based on asset values of the trust funds as of June 30, 2015 and member census data as of June 30, 2014, adjusted for certain activity during fiscal year 2015. All asset information and member data were provided by INPRS. While certain checks for reasonableness were performed, the data was used unaudited. The accuracy of the results presented in the reports is dependent upon the accuracy and completeness of the underlying asset and census information.

pwc

Actuarial Assumptions and Methods
The actuarial assumptions used in the June 30, 2015 valuations were adopted by the Board pursuant to the experience studies completed in April 2015, which reflected the experience period from July 1, 2010 through June 30, 2014. The June 30, 2015 valuations incorporate member census data as of June 30, 2014, adjusted for certain activity during fiscal year 2015. Standard actuarial techniques were used to roll forward valuation results over one year.

The actuarial assumptions and methods are summarized in the Actuarial Assumptions and Methods section of each valuation report. We believe the actuarial assumptions and methods are reasonable for the purposes of the valuation reports and comply with the parameters set forth in Statements No. 67 and No. 68 of the Governmental Accounting Standards Board ("GASB"). Different assumptions and methods may be reasonable for other purposes. As such, the results presented in the valuation reports should only be relied upon for the intended purpose.

Certification
We certify that the information presented herein is accurate and fairly portrays the actuarial position of each Plan administered by INPRS (other than the Teachers' Retirement Fund) as of June 30, 2015, based on the underlying census data, asset information and selected assumptions and methods. This information is presented in several schedules and exhibits in this report, including the following:

Financial Section:
- Note 1 - Tables of Plan Membership (Included in the Historical Summary)
- Note 8 - Net Pension Liability and Actuarial Information - Defined Benefit Plans (Included in the Accounting Section)
- Schedule of Changes in Net Pension Liability and Plan Fiduciary Net Position
- Schedule of Contributions (Actuarially Determined Contribution)
- Schedule of Notes to Required Supplementary Information

Actuarial Section:
- Summary of INPRS Funded Status (Included in the Historical Summary)
- Historical Summary of Actuarial Valuation Results by Retirement Plan (Schedule of Funding Progress Included in the Historical Summary)
- Summary of Actuarial Assumptions, Methods and Plan Provisions
- Analysis of Financial Experience (Included in the Unfunded Actuarial Accrued Liability Reconciliation)
- Solvency Test (Included in the Historical Summary)
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries

Statistical Section:
- Membership Data Summary (Included in the Historical Summary)
- Ratio of Active Members to Annuitants (Census Counts Included in the Historical Summary)
- Schedule of Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

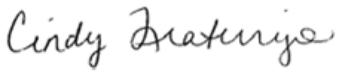
This report contains certain accounting information required to be included in the System's Comprehensive Annual Financial Report. This information for the system has been prepared in accordance with our understanding of GASB No.67. This report also contains employer accounting information prepared in accordance with our understanding of GASB No. 68.

To the best of our knowledge this actuarial statement is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with our understanding of the requirements of Indiana state law. The undersigned actuaries are members of the Society of Actuaries and other professional organizations, including the American Academy of Actuaries, and meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States relating to pension plans. There is no relationship between the PwC practitioners involved in this engagement and INPRS that may impair our objectivity.

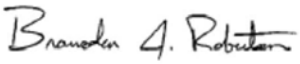
pwc

This document has been prepared pursuant to an engagement letter between INPRS and PwC, and is intended solely for the use and benefits of INPRS and not for reliance by any other person.

Respectfully submitted,



Ms. Cindy Fraterrigo
Member, American Academy of Actuaries
Fellow of the Society of Actuaries
Enrolled Actuary (No. 14-06229)



Mr. Brandon Robertson
Member, American Academy of Actuaries
Associate of the Society of Actuaries
Enrolled Actuary (No. 14-07568)

The content of this document is limited to the matters specifically addressed herein and does not address any other potential tax consequences, or the potential application of tax penalties, to any matter other than as set forth herein. Our conclusions are not binding upon any taxing authority or the courts and there is no assurance that any relevant taxing authority will not successfully assert a contrary position. In addition, no exceptions (including the reasonable cause exception) are available for any federal or state penalties imposed if any portion of a transaction is determined to lack economic substance or fails to satisfy any similar rule of law, and our advice will not protect you from any such penalties. This document supersedes all prior written or oral advice with respect to the issues addressed in this document and all such prior communications should not be relied upon by any person for any purpose.

November 1, 2015

The Board of Trustees
Indiana Public Retirement System
Indianapolis, IN

Dear Board Members:

An actuarial valuation is prepared annually for the Indiana State Teachers' Retirement Fund. Submitted in this report are the results of the June 30, 2015 actuarial valuation.

Census Data and Asset Information
The member census data and the asset information for this valuation were furnished by the Chief Financial Officer and Staff. Their efforts and cooperation in furnishing these materials are acknowledged with appreciation. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

Assumptions and Methods
The majority of the actuarial assumptions used in the June 30, 2015 valuation were adopted by the Board pursuant to the Experience Study completed in April 2015, which reflects the experience period from July 1, 2011 to June 30, 2014. The Board also adopted a change to the mortality basis effective with the June 30, 2015 valuation, and confirmed the 6.75% interest rate in use since 2012. Assumptions are summarized in the Assumptions and Methods section of this report. These assumptions and methods have been used to develop the Actuarially Determined Contribution and are consistent with the accounting requirements detailed in GASB Statements No. 67 and No. 68.

Benefit obligations in the June 30, 2015 valuation are determined using June 30, 2014 census data and rolled-forward to the June 30, 2015 measurement date at the valuation interest rate, using actual distributions and ASA account returns during that period. We are not aware of any material events that would require additional adjustments to the benefit obligations for changes to the population not anticipated in the demographic assumptions used in the valuation.

Funding Objectives
The Indiana State Teachers' Retirement Fund Pre-1996 Account is funded on a pay-as-you-go basis from the State of Indiana.

The funding objective of the Indiana State Teachers' Retirement Fund 1996 Account is to establish and receive contributions that, when invested at the assumed rate of return, will ultimately accumulate assets over each member's working lifetime that will be sufficient to pay expected retirement allowances. As such, an employer contribution rate is calculated each year. That rate is then considered in conjunction with the goal of maintaining a relatively stable contribution over time.

Fund Structure
The Indiana State Teachers' Retirement Fund (TRF) is one fund comprised of a two-account structure in compliance with Indiana Code Section 5-10.4-2-2.

The Pre-1996 Account consists of members who were hired prior to July 1, 1995, and who have maintained continuous employment with the same school corporation or covered institution since that date.

Characteristics of the Pre-1996 Account

1. Active membership in the Pre-1996 Account continues to decline as members quit, become disabled, die, or retire.

2. The Defined Benefits from the Pre-1996 Account are funded by State appropriations (including contributions of some revenue from the State Lottery). At the time of retirement, Annuity Savings Account (ASA) benefits payable from the Pre-1996 Account are funded by the annuitization of Pre-1996 Account member contributions.

The 1996 Account consists of members who were:

1. hired on or after July 1, 1995; or
2. hired before July 1, 1995, and prior to June 30, 2005:
    a. were either hired by another school corporation or institution covered by TRF, or
    b. were re-hired by a covered prior employer.

Characteristics of the 1996 Account

1. As members depart from active service in the Pre-1996 Account, their replacements will become members of the 1996 Account. If the 1996 Account were a stand-alone plan, this pattern of departures and hirings would produce a fairly constant population size.

2. Defined Benefits payable from the 1996 Account are funded by contributions from local school corporations or other institutions that employ covered members. At the time of retirement, ASA benefits payable from the 1996 Account are funded by the annuitization of 1996 Account member contributions.

Funding Arrangements

Prior to the legislation that established the two-account structure of TRF, the Defined Benefits of the Indiana State Teachers' Retirement Fund were funded with a pay-as-you-go method. Under this arrangement, amounts were appropriated to meet the current year's pension payment requirements. Defined Benefits payable from the Pre-1996 Account continue to be funded on this basis. In 1995, the Pension Stabilization Fund was set up for the Pre-1996 Account. Since then, some pre-funding progress has been made via State appropriations to this account.

Defined Benefits payable from the 1996 Account are funded through employer percent-of-pay contributions. The Board of the Indiana Public Retirement System sets this contribution rate after reviewing the most recent actuarial valuation report. The contribution rate of 7.50% for fiscal year 2016 was set by the Board in fiscal year 2015. The contribution rate of 7.50% for fiscal year 2017 was set by the Board in fiscal year 2016.

Progress Towards Realization of Financing Objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%.

The funded ratio of the Pre-1996 Account (pay-as-you-go) decreased to 30.4% from 32.8% for the preceding year. Based on the actuarial assumptions, it is anticipated that the Pre-1996 Account will attain 100% funded status on 6/30/2039.

The funded ratio of the 1996 Account decreased to 92.5% from 96.1% for the preceding year. Based on the actuarial assumptions, it is anticipated that the 1996 Account will attain 100% funded status on 6/30/2026.

Certification
We have included several schedules and exhibits in this report, including the following:

Financial Section
- Note 1 – Tables of Plan Membership
- Note 8 – Net Pension Liability and Actuarial Information – Defined Benefit Plans
- Schedule of Changes in Net Pension Liability and Net Pension Liability
- Schedule of Contributions (Actuarially Determined Contribution)
- Schedule of Notes to Required Supplementary Information

Actuarial Section
- Summary of INPRS Funded Status
- Historical Summary of Actuarial Valuation Results by Retirement Plan (Schedule of Funding Progress)
- Summary of Actuarial Assumptions, Methods and Plan Provisions
- Analysis of Financial Experience (Unfunded Actuarial Accrued Liability Reconciliation)
- Solvency Test
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries

Statistical Section
- Membership Data Summary
- Ratio of Active Members to Annuitants
- Schedule of Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

To the best of our knowledge, this report presents a fair position of the funded status of the plan in accordance with the Actuarial Standards of Practice as described by the American Academy of Actuaries. In addition, information has been prepared in accordance with applicable government standards of financial reporting for defined benefit pension plans.

The actuarial valuation is prepared using information which has been reconciled and reviewed for reasonableness. We are not aware of any material inadequacy in employee census or asset values. The census information and the asset information have been provided to us by the Chief Financial Officer and Staff. We have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based.

In our opinion, the actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

Respectfully submitted,

Michael Zurek, EA, MAAA

Matt Sherertz, ASA, EA

Tayt V. Odom, FSA, EA, MAAA

Summary of Funded Status

(dollars in millions)

Pre-Funded Defined Benefit Retirement Plans	Actuarial Valuation as of June 30, 2015				Actuarial Valuation as of June 30, 2014			
	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability[1]	Actuarial Funded Status	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability[1]	Actuarial Funded Status
Public Employees' Retirement Fund	$ 17,980.6	$ 14,131.9	$ 3,848.7	78.6%	$ 16,732.2	$ 13,791.3	$ 2,940.9	82.4%
Teachers' Retirement Fund 1996 Account	5,905.7	5,461.2	444.5	92.5	5,237.0	5,035.2	201.8	96.1
1977 Police Officers' and Firefighters' Pension and Disability Fund	4,680.7	4,939.3	(258.6)	105.5	4,707.0	4,625.5	81.5	98.3
Judges' Retirement System	468.9	447.5	21.4	95.4	464.9	419.6	45.3	90.3
State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan	132.8	112.8	20.0	84.9	123.6	107.6	16.0	87.0
Prosecuting Attorneys' Retirement Fund	77.9	54.9	23.0	70.4	65.3	52.9	12.4	81.0
Legislators' Defined Benefit Plan	4.3	3.3	1.0	77.1	4.2	3.5	0.7	83.1
Total Pre-Funded Defined Benefit Retirement Plans	$ 29,250.9	$ 25,150.9	$ 4,100.0	86.0%	$ 27,334.2	$ 24,035.6	$ 3,298.6	87.9%
Pay-As-You-Go Defined Benefit Retirement Plan								
Teachers' Retirement Fund Pre-1996 Account	17,017.7	5,171.6	11,846.1	30.4	16,355.2	5,358.3	10,996.9	32.8
Total Defined Benefit Retirement Plans	$ 46,268.6	$ 30,322.5	$ 15,946.1	65.5%	$ 43,689.4	$ 29,393.9	$ 14,295.5	67.3%

[1]*The Unfunded Liability is calculated using the Actuarial Value of Assets (AVA), which is different from the Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).*

Analysis of Financial Experience

(dollars in thousands)

Defined Benefit Retirement Plans	June 30, 2014 UAAL[1]	(Gain) / Loss: Actuarial Value of Assets Experience	(Gain) / Loss: Actuarial Accrued Liabilities Experience[2]	(Gain) / Loss: Amortization of Existing Bases	(Gain) / Loss: Actuarial Assumption & Methodology Changes[3]	(Gain) / Loss: Plan Provision Changes	June 30, 2015 UAAL[1]
Public Employees' Retirement Fund	$ 2,940,962	$ 217,686	$ 247,978	$ (46,295)	$ 488,354	$ -	$ 3,848,685
Teachers' Retirement Fund Pre-1996 Account	10,996,865	32,776	(140,466)	(76,225)	1,033,157	-	11,846,107
Teachers' Retirement Fund 1996 Account	201,762	36,284	(40,857)	(16,661)	263,991	-	444,519
1977 Police Officers' and Firefighters' Pension and Disability Fund	81,522	33,100	(61,640)	(1,817)	(309,801)	-	(258,636)
Judges' Retirement System	45,287	644	8,411	(986)	(31,926)	-	21,430
State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan	16,037	775	846	(296)	2,669	-	20,031
Prosecuting Attorneys' Retirement Fund	12,400	1,045	4,551	(200)	5,216	-	23,012
Legislators' Defined Benefit Plan	706	63	(70)	(33)	325	-	991
Total INPRS	**$ 14,295,541**	**$ 322,373**	**$ 18,753**	**$ (142,513)**	**$ 1,451,985**	**$ -**	**$ 15,946,139**

[1] UAAL: Unfunded Actuarial Accrued Liabilities

[2] Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA):

- *For PERF, TRF Pre-1996, TRF 1996, and EG&C, a one-time payment (i.e., 13th Check) for benefit recipients by October 1, 2015, rather than the assumed COLA of 1.00 percent.*
- *For 1977 Fund, no COLA for benefit recipients effective July 1, 2015, rather than the assumed COLA of 2.25 percent.*
- *For JRS, a 2.20 percent COLA for benefit recipients effective July 1, 2015, rather than the assumed COLA of 4.00 percent.*
- *For the LEDB Plan, no COLA for benefit recipients effective January 1, 2016, rather than the assumed COLA of 1.00 percent.*

[3] The mortality, retirement, termination, dependent, COLA, salary scale and other assumptions were updated pursuant to an experience study completed in April 2015.

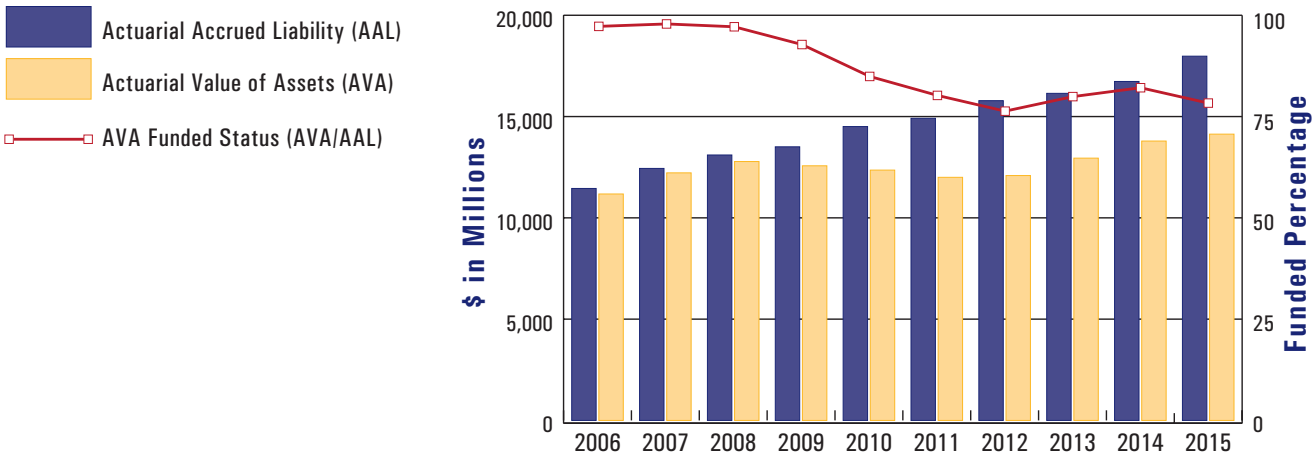
Ten-Year Schedule of Participating Employers

Fiscal Year	Total[1]	PERF	TRF[2] (Consolidated)	TRF Pre-1996[2]	TRF 1996[2]	1977	JRS	EG&C	PARF	LEDB
2006[3]	1,691	1,169	358	N/A	N/A	160	1	1	1	1
2007[3]	1,663	1,138	360	N/A	N/A	161	1	1	1	1
2008	1,207	1,167	361	N/A	N/A	158	1	1	1	1
2009	1,220	1,179	360	N/A	N/A	160	1	1	1	1
2010	1,230	1,180	367	N/A	N/A	164	1	1	1	1
2011	1,182	1,132	369	N/A	N/A	166	1	1	1	1
2012[4]	1,170	1,122	364	N/A	N/A	162	1	1	1	1
2013[4]	1,171	1,121	365	N/A	N/A	161	1	1	1	1
2014	1,175	1,126	N/A	340	363	162	1	1	1	1
2015	1,212	1,167	N/A	339	360	165	1	1	1	1

[1]Sum of individual employers by retirement plan does not equal total employers, since one (1) employer may participate in multiple retirement plans.
[2]Prior to Fiscal Year 2013 participating employers for TRF were not split between the TRF Pre-1996 Account and the TRF 1996 Account.
[3]The total is the sum of each of the plans, so employers are duplicated if they participate in more than one plan.
[4]The total was adjusted to treat the State and its component units as one employer.

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL – AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006	$ 11,450.9	$ 11,178.0	$ 272.9	97.6%	$ 4,600.0	5.9%
2007	12,439.8	12,220.9	218.9	98.2	4,325.0	5.1
2008	13,103.2	12,780.1	323.1	97.5	4,550.0	7.1
2009	13,506.2	12,569.3	936.9	93.1	4,850.0	19.3
2010	14,506.1	12,357.2	2,148.9	85.2	4,800.0	44.8
2011	14,913.1	12,000.6	2,912.5	80.5	4,500.0	64.7
2012	15,784.2	12,088.2	3,696.0	76.6	4,550.0	81.2
2013	16,145.7	12,947.3	3,198.4	80.2	4,700.0	68.1
2014	16,732.2	13,791.3	2,940.9	82.4	4,896.6	60.1
2015	17,980.6	14,131.9	3,848.7	78.6	4,804.1	80.1

[1]The Unfunded Liability is calculated using the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section.

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the Public Employees' Retirement Fund were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2010 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The inflation assumption changed from 3.00% to 2.25% per year.

The future salary increase assumption changed from an age-based table ranging from 3.25% to 4.50% to an age-based table ranging from 2.50% to 4.25%.

The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) Total Data Set Mortality Tables projected on a fully generational basis using the future mortality improvement scale inherent in the mortality projection included in the Social Security Administration's 2014 Trustee Report.

The retirement assumption was updated based on recent experience. Additionally, for actives who are eligible for early retirement (reduced benefit), 33% are assumed to commence benefits immediately and 67% are assumed to commence benefits at unreduced retirement eligibility. 100% of actives were assumed to commence benefits immediately upon early retirement eligibility in the prior year.

The termination assumption was updated based on recent experience. For members earning less than $20,000, the tables were updated from a select and ultimate table to just an ultimate table as there is little correlation with service. For members earning more than $20,000, the tables were updated from using a 5-year select period to a 10-year select period to correspond with the vesting schedule.

The disability assumption was updated based on recent experience.

The ASA Annuitization assumption was updated from 50% of members assumed to annuitize their ASA balance to 60% of members assumed to annuitize their ASA balance prior to January 1, 2017.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes to the plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)
Cost of Living Increases:	1.00 percent per year in retirement
Future Salary Increases:	Based on 2010-2014 experience. Illustrative rates shown below:

Age	Inflation	Productivity, Merit, and Promotion	Total Individual Salary Growth
< 31	2.25%	2.00%	4.25%
31-45	2.25	1.50	3.75
46-55	2.25	1.00	3.25
56-60	2.25	0.50	2.75
> = 61	2.25	0.25	2.50

Inflation: 2.25 percent per year

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Demographic Assumptions: Based on 2010-2014 Experience

Mortality (Healthy and Disabled): RP-2014 (with MP-2014 improvement removed) Total Data Set Mortality Tables projected on a fully generational basis using the future mortality improvement scale inherent in the mortality projection included in the Social Security Administration's 2014 Trustee Report.

Retirement:

	Years of Service						
Age	10-14	15-25	26	27	28	29	30+
50-54	- %	4 %	4 %	4 %	4 %	4 %	4 %
55	-	5	5	5	5	5	14
56	-	5	5	5	5	14	10
57	-	5	5	5	14	10	10
58	-	5	5	14	10	10	10
59	-	5	14	10	10	10	10
60	-	12	12	12	12	12	12
61	-	16	16	16	16	16	16
62	-	22	22	22	22	22	22
63	-	19	19	19	19	19	19
64	-	24	24	24	24	24	24
65-74	30	30	30	30	30	30	30
75+	100	100	100	100	100	100	100

Benefit Commencement Timing:

Active Members: If eligible for a reduced early retirement benefit upon termination from employment, 33% commence immediately and 67% defer to earliest unreduced retirement age.
If eligible for an unreduced retirement benefit upon termination from employment, 100% commence immediately.

Terminated Vested Members: 100% defer to earliest unreduced retirement age. If currently eligible for an unreduced retirement benefit, 100% commence immediately.

Termination: Ultimate tables illustrative rates shown below:

Earnings < $20,000

	State			Political Subdivision	
Age	Male	Female	Age	Male	Female
20-24	32 %	34 %	20-24	31 %	36 %
25-29	32	33	25-29	31	34
30-34	32	30	30-34	26	25
35-39	29	30	35-39	22	18
40-44	29	24	40-44	21	15
45-49	26	24	45-49	18	12
50-54	25	22	50-54	14	11
55+	22	20	55+	14	11

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

State (Male)

Earnings > = $20,000

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
20-24	23%	23%	23%	20%	20%	17%	17%	12%	12%	7%	7%
25-29	23	23	23	19	17	17	17	12	12	7	7
30-34	22	22	19	18	16	13	13	12	7	7	7
35-39	17	17	17	17	16	10	10	9	7	6	6
40-44	17	17	14	12	12	10	9	9	7	5	5
45-49	14	14	14	10	10	10	9	7	4	4	4
50-54	14	14	9	9	9	9	9	7	4	4	4
55+	13	13	7	7	7	7	7	7	4	4	4

State (Female)

Earnings > = $20,000

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
20-24	23%	23%	23%	23%	17%	17%	13%	12%	11%	8%	8%
25-29	23	23	22	21	17	17	13	12	11	8	8
30-34	21	21	21	17	15	14	12	12	11	8	8
35-39	19	19	16	16	12	12	12	12	9	8	7
40-44	18	18	16	13	12	12	9	9	8	8	6
45-49	16	16	16	13	10	10	9	9	8	8	6
50-54	16	16	15	12	10	9	9	9	6	6	6
55+	16	16	11	11	10	9	9	9	6	6	6

Political Subdivisions (Male)

Earnings > = $20,000

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
20-24	18%	18%	18%	18%	14%	12%	11%	11%	7%	7%	5%
25-29	18	18	18	16	14	12	11	11	7	7	5
30-34	16	16	16	15	13	11	11	11	7	7	5
35-39	15	15	12	12	12	10	9	9	7	7	5
40-44	13	13	11	11	10	10	9	9	7	7	4
45-49	11	11	11	11	9	7	7	7	7	7	4
50-54	11	11	9	9	9	7	7	6	6	4	4
55+	11	11	7	7	7	7	7	5	5	4	4

Political Subdivisions (Female)

Earnings > = $20,000

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
20-24	22%	22%	19%	16%	14%	14%	11%	11%	9%	7%	7%
25-29	21	21	18	16	14	14	11	11	9	7	7
30-34	16	16	16	14	14	14	11	11	9	7	7
35-39	14	14	14	12	12	12	9	9	9	7	6
40-44	13	13	12	11	10	8	8	8	8	7	4
45-49	12	12	12	10	8	8	8	7	6	6	4
50-54	11	11	10	8	8	6	6	6	6	5	4
55+	11	11	8	8	8	6	6	6	6	4	4

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Disability:

Age	Male	Female
20	0.0067%	0.0050%
30	0.0208	0.0158
40	0.0646	0.0496
50	0.2005	0.1556
60	0.5815	0.3751
70	0.1000	0.1000
80	0.0000	0.0000

Spouse/Beneficiary:

75 percent of male members and 60 percent of female members are assumed to be married and or to have a dependent beneficiary. Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

ASA Withdrawal:

Prior to January 1, 2017:
- 40% of active members who decrement while vested are assumed to withdraw their ASA balance immediately upon decrement.
- 40% of vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.
- 100% of active members who decrement prior to vesting are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of non-vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.

Beginning January 1, 2017:
- 100% of active members are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of inactive members are assumed to withdraw their ASA balance immediately.

ASA Annuitization:

Prior to January 1, 2017:
- 60% of active members who decrement while vested are assumed to annuitize their ASA balance at their assumed retirement age.
- 60% of vested inactive members are assumed to annuitize their ASA balance at their assumed retirement age.
- Between 10/1/2014 to 9/30/2015 the conversion rate is 5.75%, and between 10/1/2015 to 12/31/2016 the conversion rate is 4.5%.

Beginning January 1, 2017, assumed INPRS entered an agreement with a third party for all ASA annuitizations.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method:	Entry Age Normal – Level Percent of Payroll
	The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.
	This method produces a cost of future benefit accruals that is a level percent of pay over time, which is more desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.
Amortization Method:	For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.
	For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.
Actuarial (Liability) Valuation Method:	Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.
Asset Valuation Method:	Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA.
	Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 2,940,962**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	217,686
Actuarial Accrued Liabilities Experience[1]	247,978
Amortization of Existing Bases	(46,295)
Actuarial Assumption & Methodology Changes[2]	488,354
Plan Provision Changes	-
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ 3,848,685**

[1] Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA), which is a gain of approximately $31,659 thousand for benefit recipients being provided a one-time (13th check) by October 1, 2015, rather than the assumed COLA of 1.00 percent.

[2] Several Assumptions were updated pursuant to an experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006	$ 2,515,984	$ 3,648,764	$ 5,286,181	$ 11,450,929	$11,177,971	100.0%	100.0%	94.8%	97.6%
2007	2,707,176	4,007,389	5,725,233	12,439,798	12,220,934	100.0	100.0	96.2	98.2
2008	2,694,331	4,227,366	6,181,524	13,103,221	12,780,116	100.0	100.0	94.8	97.5
2009	2,669,318	4,611,257	6,225,705	13,506,280	12,569,336	100.0	100.0	85.0	93.1
2010	2,780,570	4,931,592	6,793,890	14,506,052	12,357,199	100.0	100.0	68.4	85.2
2011	2,805,023	5,370,786	6,737,338	14,913,147	12,000,586	100.0	100.0	56.8	80.5
2012	2,749,449	5,895,779	7,139,012	15,784,240	12,088,225	100.0	100.0	48.2	76.6
2013	2,796,103	6,367,819	6,981,759	16,145,681	12,947,283	100.0	100.0	54.2	80.2
2014	2,851,501	6,250,902	7,629,820	16,732,223	13,791,261	100.0	100.0	61.5	82.4
2015	2,717,173	6,981,308	8,282,087	17,980,568	14,131,884	100.0	100.0	53.5	78.6

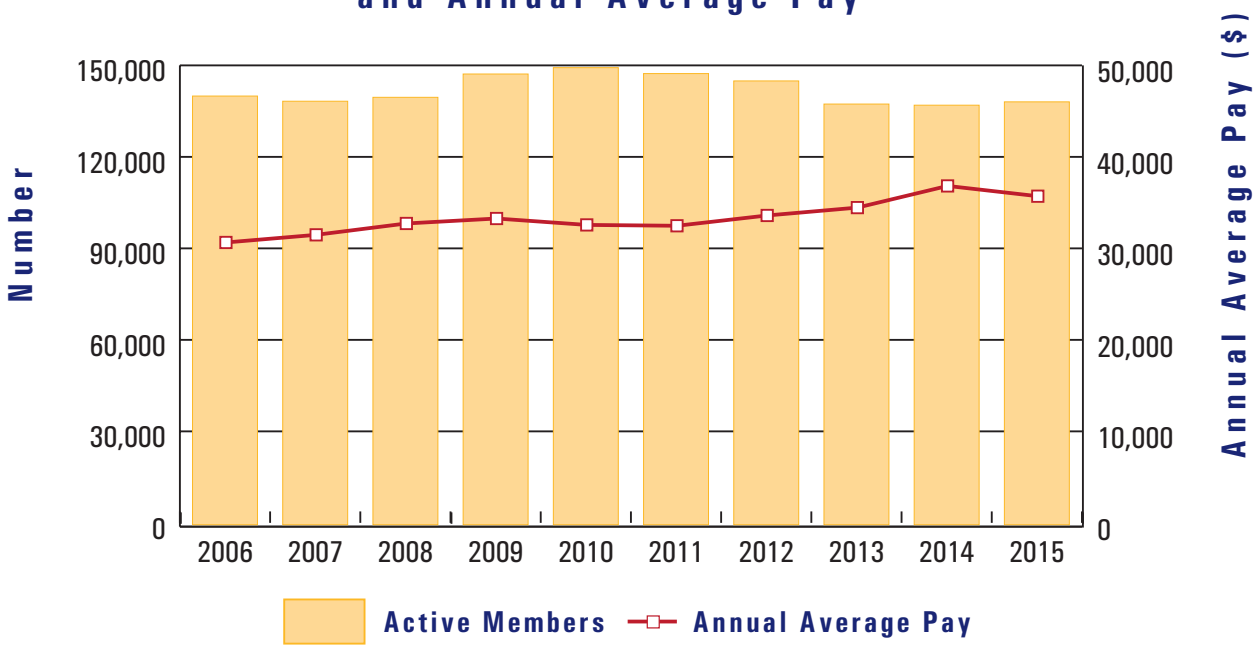
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll[1]	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006	140,563	$ 4,322,180	$ 30,749	4.3%
2007	138,863	4,385,676	31,583	2.7
2008	140,146	4,600,354	32,825	3.9
2009	147,792	4,931,423	33,367	1.7
2010	149,877	4,896,013	32,667	(2.1)
2011	147,933	4,818,774	32,574	(0.3)
2012	145,519	4,904,052	33,700	3.5
2013	137,937	4,766,910	34,559	2.5
2014[2]	137,567	5,080,092	36,928	6.9
2015[2]	138,660	4,964,813	35,806	(3.0)

[1]Figures shown are the anticipated pay for the one-year period following the valuation date.
[2]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Active Members Per Year and Annual Average Pay



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

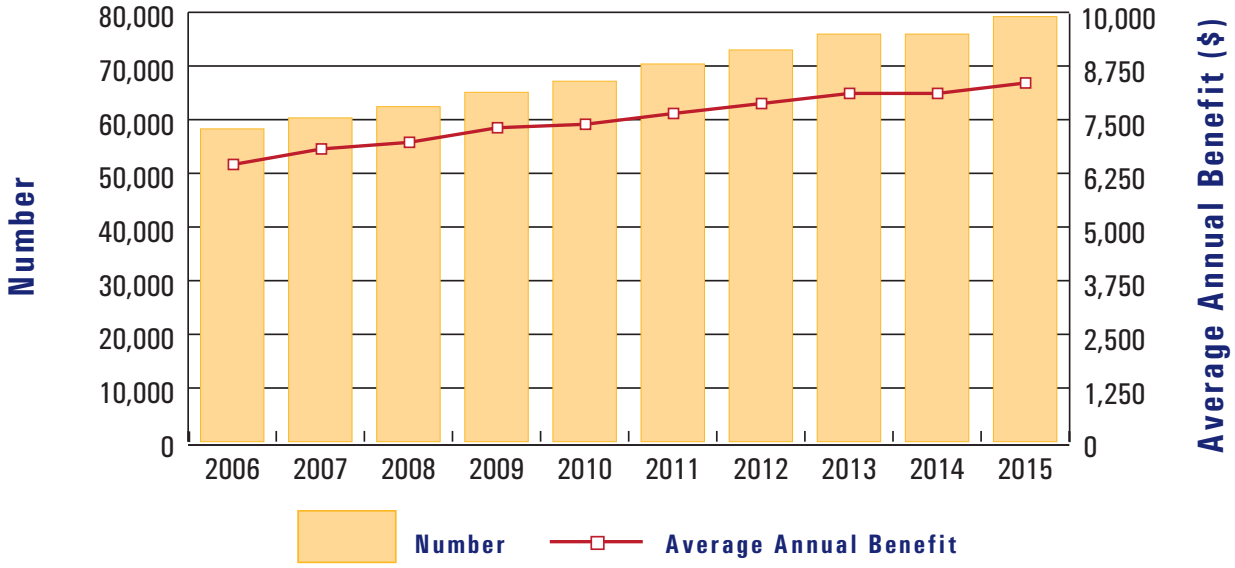
Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

Actuarial Valuation as of June 30	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit[1]	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits[1]	Number	Annual Benefits[1]	Number	Total Annual Benefits[1,2]			
2006	3,403	$ 29,572	2,241	$ 14,440	58,283	$ 377,611	6.6%	$ 6,479	4.5%
2007	4,633	42,653	2,584	15,229	60,332	412,745	9.3	6,841	5.6
2008	5,376	43,915	3,284	18,022	62,424	436,749	5.8	6,996	2.3
2009	6,047	55,726	3,372	19,103	65,099	477,553	9.3	7,336	4.9
2010	4,827	39,214	2,760	19,022	67,166	498,199	4.3	7,417	1.1
2011	5,402	56,185	2,188	11,698	70,380	539,747	8.3	7,669	3.4
2012	4,751	49,766	2,139	12,540	72,992	576,678	6.8	7,901	3.0
2013	5,231	55,523	2,273	13,898	75,950	617,977	7.2	8,137	3.0
2014[3]	-	-	-	-	75,950	617,977	-	8,137	-
2015[3]	5,489	60,538	2,241	14,107	79,198	663,767	7.4	8,381	3.0

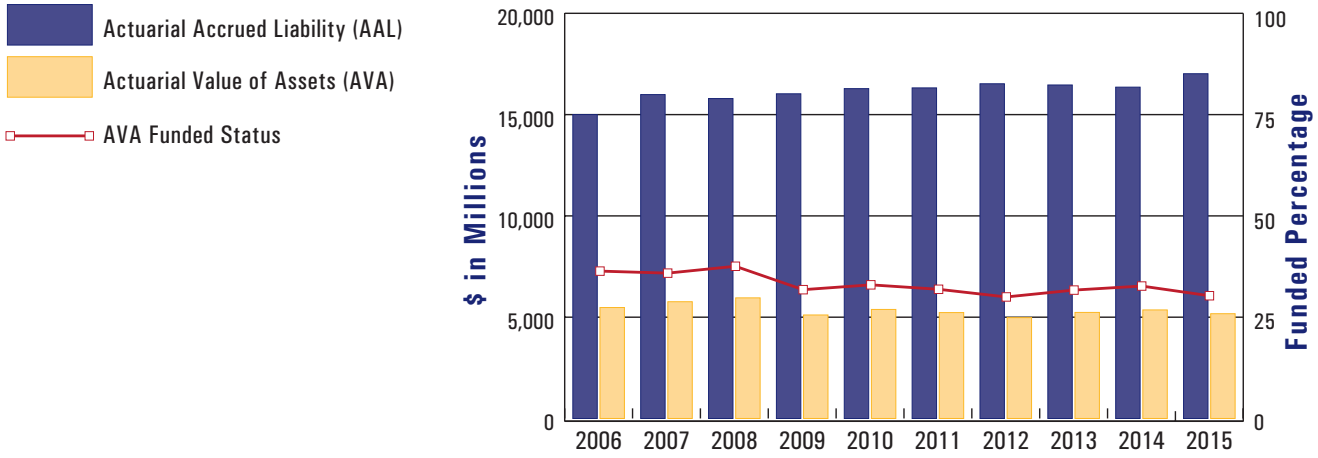
[1] *Annual benefits includes member annuities.*
[2] *End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.*
[3] *The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL – AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006	$ 15,002.5	$ 5,477.2	$ 9,525.3	36.5%	$ 2,237.4	425.7%
2007	15,988.3	5,763.5	10,224.8	36.0	2,376.4	430.3
2008	15,792.3	5,954.0	9,838.3	37.7	2,295.8	428.5
2009	16,027.1	5,109.1	10,918.0	31.9	2,030.5	537.7
2010	16,282.1	5,382.4	10,899.7	33.1	1,865.1	584.4
2011	16,318.4	5,227.4	11,091.0	32.0	1,762.8	629.2
2012	16,522.0	4,978.1	11,543.9	30.1	1,637.1	705.2
2013	16,462.4	5,235.1	11,227.3	31.8	1,383.4	811.6
2014	16,355.2	5,358.3	10,996.9	32.8	1,262.8	870.8
2015	17,017.7	5,171.6	11,846.1	30.4	1,074.8	1102.2

[1]The Unfunded Liability is calculated using the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section.

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the Teachers' Retirement Fund Pre-1996 Account were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2011 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The inflation assumption changed from 3.00% to 2.25% per year.

The future salary increase assumption changed from a table ranging from 3.00% to 12.50% to a table ranging from 2.50% to 12.50%.

The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 White Collar Mortality Table with Social Security Administration generational projection scale from 2006.

The retirement assumption was updated based on recent experience.

The termination assumption was updated based on recent experience.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes to the plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)
Cost of Living Increases:	1.00 percent per year in retirement
Future Salary Increases:	Based on 2011-2014 experience. Illustrative rates shown below:

Years of Service	Inflation	Merit and Seniority	Total Individual Salary Growth
1	2.25%	10.25%	12.50%
5	2.25	2.75	5.00
10	2.25	2.75	5.00
15	2.25	1.50	3.75
20	2.25	0.25	2.50
25	2.25	0.25	2.50
30	2.25	0.25	2.50
35	2.25	0.25	2.50
40	2.25	0.25	2.50

Inflation: 2.25 percent per year

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Demographic Assumptions: Based on 2011-2014 Experience

Mortality (Healthy and Disabled): RP-2014 White Collar Mortality Table with Social Security Administration generational improvement scale from 2006.

Retirement:

Regular Retirement		Rule of 85 Retirement		Early Retirement	
Age	Probability	Age	Probability	Age	Probability
				50-53	2.0%
				54	5.0
		55	15.0%	55	5.0
		56	15.0	56	5.0
		57	15.0	57	6.5
		58	15.0	58	8.0
		59	20.0	59	12.0
60	20.0%	60	20.0		
61	25.0	61	25.0		
62	30.0	62	30.0		
63	35.0	63	35.0		
64	40.0	64	40.0		
65-69	45.0	65-69	45.0		
70+	100.0	70+	100.0		

Termination:

Service Based			Age Based[1]		
Years of Service	Male	Female	Attained Age	Male	Female
0	35.0%	35.0%	30	2.25%	3.0%
1	14.0	14.0	35	2.25	3.0
2	11.0	11.0	40	2.25	2.0
3	9.0	9.0	45	2.25	2.0
4	8.0	8.0	50	2.25	2.0
5	7.0	7.0	55	2.25	2.0
6	6.0	6.0	60	2.25	2.0
7	5.0	5.5			
8	4.5	5.0			
9	4.5	4.5			

[1]Age-based rates apply only if 10 or more years of service.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Disability:

Age	Male	Female
25	0.01%	0.01%
30	0.01	0.01
35	0.01	0.01
40	0.01	0.01
45	0.02	0.02
50	0.05	0.05
55	0.09	0.09
60	0.10	0.10

Spouse/Beneficiary:

100 percent of members are assumed to be married for purposes of valuing death-in-service benefits.

Male spouses are assumed to be three (3) years older than female spouses.

ASA Withdrawal:

Prior to January 1, 2017:
- 50% of active members who decrement while vested are assumed to withdraw their ASA balance immediately upon decrement.
- 50% of vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.
- 100% of active members who decrement prior to vesting are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of non-vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.

Beginning January 1, 2017:
- 100% of active members are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of inactive members are assumed to withdraw their ASA balance immediately.

ASA Annuitization:

Prior to January 1, 2017:
- 50% of active members who decrement while vested are assumed to annuitize their ASA balance at their assumed retirement age.
- 50% of vested inactive members are assumed to annuitize their ASA balance at their assumed retirement age.
- Between 10/1/2014 to 9/30/2015 the conversion rate is 5.75%, and between 10/1/2015 to 12/31/2016 the conversion rate is 4.5%.

Beginning January 1, 2017, assumed INPRS entered an agreement with a third party for all ASA annuitizations.

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method:	Entry Age Normal – Level Percent of Payroll The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date. This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.
Amortization Method:	For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities. For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.
Actuarial (Liability) Valuation Method:	Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.
Asset Valuation Method:	Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA. Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 10,996,865**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	32,776
Actuarial Accrued Liabilities Experience[1]	(140,466)
Amortization of Existing Bases	(76,225)
Actuarial Assumptions & Methodology Changes[2]	1,033,157
Plan Provision Changes	-
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ 11,846,107**

[1]Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA), which is a gain of approximately $71,614 thousand for benefit recipients being provided a one-time (13th check) by October 1, 2015, rather than the assumed COLA of 1.00 percent.
[2]Several Assumptions were updated pursuant to an experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006	$ 2,898,891	$ 6,238,115	$ 5,865,465	$ 15,002,471	$ 5,477,221	100.0%	41.3%	0.0%	36.5%
2007	3,016,052	7,063,889	5,908,318	15,988,259	5,763,508	100.0	38.9	0.0	36.1
2008	2,613,138	7,244,422	5,934,745	15,792,305	5,953,991	100.0	46.1	0.0	37.7
2009	2,389,886	7,891,346	5,745,861	16,027,093	5,109,086	100.0	34.5	0.0	31.9
2010	2,353,715	8,153,240	5,775,111	16,282,066	5,382,410	100.0	37.1	0.0	33.1
2011	2,015,580	8,776,916	5,525,908	16,318,404	5,227,402	100.0	36.6	0.0	32.0
2012	1,782,353	9,451,792	5,287,870	16,522,015	4,978,107	100.0	33.8	0.0	30.1
2013	1,636,978	10,254,953	4,570,448	16,462,379	5,235,104	100.0	35.1	0.0	31.8
2014	1,525,192	9,876,539	4,953,485	16,355,216	5,358,351	100.0	38.8	0.0	32.8
2015	1,303,468	10,606,053	5,108,225	17,017,746	5,171,639	100.0	36.5	0.0	30.4

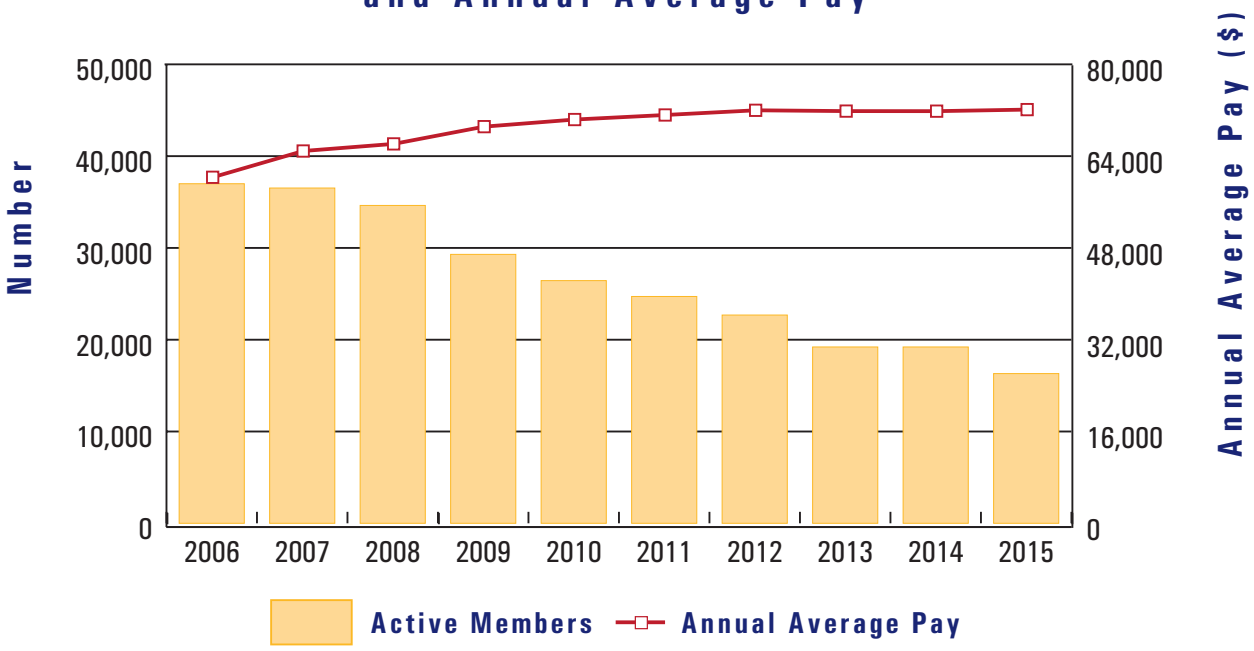
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll[1]	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006	36,994	$ 2,237,380	$ 60,480	2.6 %
2007	36,526	2,376,390	65,060	7.6
2008	34,628	2,295,816	66,299	1.9
2009	29,297	2,030,484	69,307	4.5
2010	26,439	1,865,102	70,544	1.8
2011	24,710	1,762,750	71,338	1.1
2012	22,688	1,637,066	72,156	1.1
2013	19,210	1,383,428	72,016	(0.2)
2014[2]	19,210	1,383,242	72,006	(0.0)
2015[2]	16,310	1,178,846	72,277	0.4

[1]Figures shown are the anticipated pay for the one-year period following the valuation date.
[2]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Active Members Per Year and Annual Average Pay



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

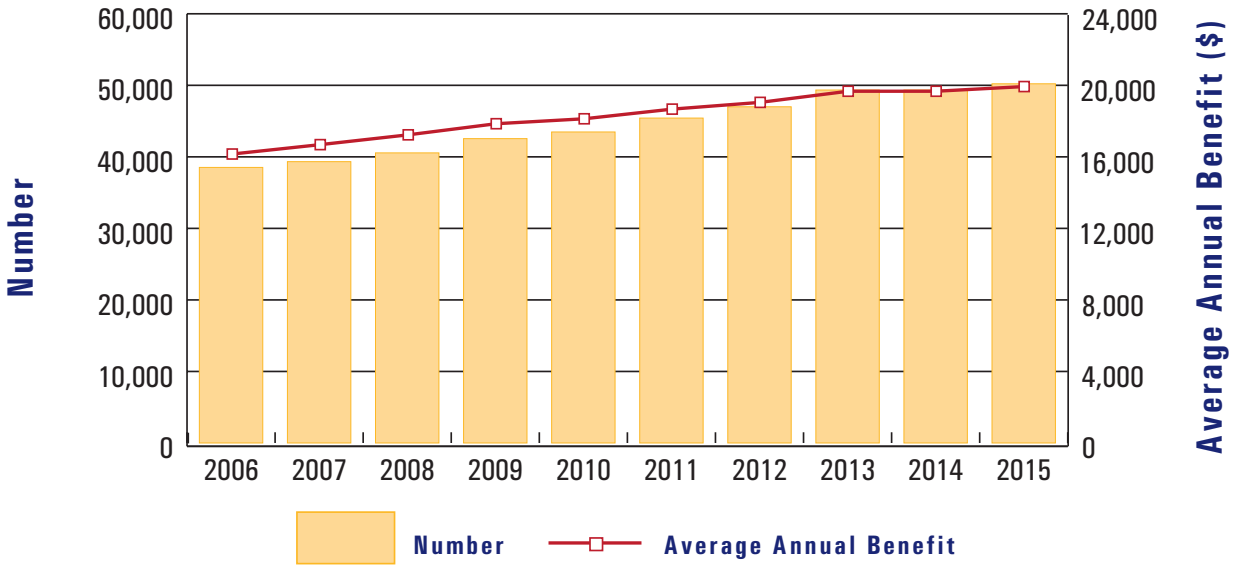
Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

Valuation Date	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit[2]	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits[1]			
2006[3]					38,522	$ 624,573	6.5%	$ 16,213	3.4%
2007	2,292	$ 52,947	1,063	$ 12,167	39,328	658,297	5.4	16,739	3.2
2008	2,296	52,167	966	11,026	40,554	701,155	6.5	17,289	3.3
2009[4]	2,344	56,819	929	11,062	42,548	762,067	8.7	17,911	3.6
2010	1,940	47,657	1,010	11,982	43,478	790,773	3.8	18,188	1.5
2011	3,003	77,290	1,060	13,121	45,421	850,711	7.6	18,729	3.0
2012	2,541	63,923	962	12,216	47,000	898,006	5.6	19,107	2.0
2013	3,422	93,605	1,077	14,524	49,345	973,635	8.4	19,731	3.3
2014[5]	-	93,605	-	14,524	49,345	973,635	-	19,731	0.0
2015[5]	1,886	50,261	1,017	14,293	50,214	1,003,910	3.1	19,993	1.3

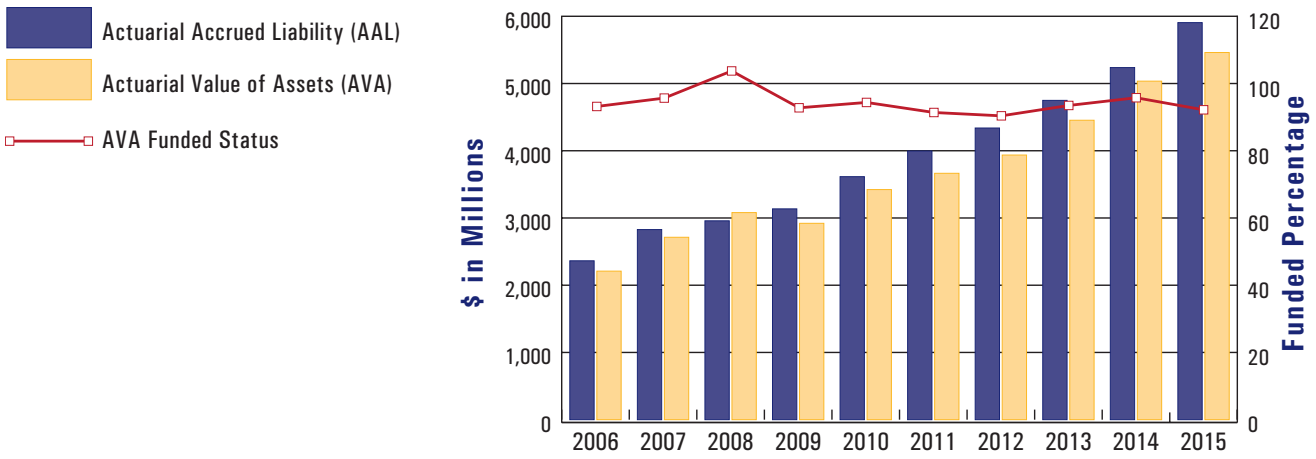
[1] *End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.*
[2] *Average annual benefit includes member annuities.*
[3] *Adds & Drops prior to fiscal year 2007 are not available.*
[4] *The end of year number of benefit recipients are not equal to prior end of year number of benefit recipients plus additions less removals due to reclassifications between Pre-1996 Account and 1996 Account.*
[5] *The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL – AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006	$ 2,363.1	$ 2,209.5	$ 153.6	93.5%	$ 1,425.0	10.8%
2007	2,827.6	2,713.1	114.5	96.0	1,675.0	6.8
2008	2,957.8	3,080.1	(122.3)	104.1	1,825.0	(6.7)
2009	3,135.5	2,920.7	214.8	93.1	2,075.0	10.4
2010	3,614.6	3,422.6	192.0	94.7	2,200.0	8.7
2011	3,996.8	3,664.6	332.2	91.7	2,225.0	14.9
2012	4,338.3	3,936.4	401.9	90.7	2,400.0	16.7
2013	4,749.3	4,453.8	295.5	93.8	2,442.5	12.1
2014	5,237.0	5,035.2	201.8	96.1	2,598.1	7.8
2015	5,905.7	5,461.2	444.5	92.5	2,742.2	16.2

[1]The Unfunded Liability uses the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section.

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the Teachers' Retirement Fund 1996 Account were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2011 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The inflation assumption changed from 3.00% to 2.25% per year.
The future salary increase assumption changed from a table ranging from 3.00% to 12.50% to a table ranging from 2.50% to 12.50%.
The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 White Collar Mortality Table with Social Security Administration generational projection scale from 2006.
The retirement assumption was updated based on recent experience.
The termination assumption was updated based on recent experience.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes to the plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)

Cost of Living Increases: 1.00 percent per year in retirement

Future Salary Increases: Based on 2011-2014 experience. Illustrative rates shown below:

Years of Service	Inflation	Merit and Seniority	Total Individual Salary Growth
1	2.25%	10.25%	12.50%
5	2.25	2.75	5.00
10	2.25	2.75	5.00
15	2.25	1.50	3.75
20	2.25	0.25	2.50
25	2.25	0.25	2.50
30	2.25	0.25	2.50
35	2.25	0.25	2.50
40	2.25	0.25	2.50

Inflation: 2.25 percent per year

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Demographic Assumptions: Based on 2011-2014 Experience

Mortality (Healthy and Disabled): RP-2014 White Collar Mortality Table with Social Security Administration generational improvement scale from 2006.

Retirement:

Regular Retirement		Rule of 85 Retirement		Early Retirement	
Age	Probability	Age	Probability	Age	Probability
				50-53	2.0%
				54	5.0
		55	15.0%	55	5.0
		56	15.0	56	5.0
		57	15.0	57	6.5
		58	15.0	58	8.0
		59	20.0	59	12.0
60	20.0%	60	20.0		
61	25.0	61	25.0		
62	30.0	62	30.0		
63	35.0	63	35.0		
64	40.0	64	40.0		
65-69	45.0	65-69	45.0		
70+	100.0	70+	100.0		

Termination:

Service Based			Age Based[1]		
Years of Service	Male	Female	Attained Age	Male	Female
0	35.0%	35.0%	30	2.25%	3.0%
1	14.0	14.0	35	2.25	3.0
2	11.0	11.0	40	2.25	2.0
3	9.0	9.0	45	2.25	2.0
4	8.0	8.0	50	2.25	2.0
5	7.0	7.0	55	2.25	2.0
6	6.0	6.0	60	2.25	2.0
7	5.0	5.5			
8	4.5	5.0			
9	4.5	4.5			

[1]Age-based rates apply only if 10 or more years of service.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Disability:

Age	Male	Female
25	0.01%	0.01%
30	0.01	0.01
35	0.01	0.01
40	0.01	0.01
45	0.02	0.02
50	0.05	0.05
55	0.09	0.09
60	0.10	0.10

Spouse/Beneficiary:

100 percent of members are assumed to be married for purposes of valuing death-in-service benefits.

Male spouses are assumed to be three (3) years older than female spouses.

ASA Withdrawal:

Prior to January 1, 2017:
- 50% of active members who decrement while vested are assumed to withdraw their ASA balance immediately upon decrement.
- 50% of vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.
- 100% of active members who decrement prior to vesting are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of non-vested inactive members are assumed to withdraw their ASA balance immediately on the valuation date.

Beginning January 1, 2017:
- 100% of active members are assumed to withdraw their ASA balance immediately upon decrement.
- 100% of inactive members are assumed to withdraw their ASA balance immediately.

ASA Annuitization:

Prior to January 1, 2017:
- 50% of active members who decrement while vested are assumed to annuitize their ASA balance at their assumed retirement age.
- 50% of vested inactive members are assumed to annuitize their ASA balance at their assumed retirement age.
- Between 10/1/2014 to 9/30/2015 the conversion rate is 5.75%, and between 10/1/2015 to 12/31/2016 the conversion rate is 4.5%.

Beginning January 1, 2017, assumed INPRS entered an agreement with a third party for all ASA annuitizations.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method:	Entry Age Normal – Level Percent of Payroll
	The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.
	This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.
Amortization Method:	For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.
	For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.
Actuarial (Liability) Valuation Method:	Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.
Asset Valuation Method:	Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA.
	Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 201,762**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	36,284
Actuarial Accrued Liabilities Experience[1]	(40,857)
Amortization of Existing Bases	(16,661)
Actuarial Assumptions & Methodology Changes[2]	263,991
Plan Provision Changes	-
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ 444,519**

[1] Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA), which is a gain of approximately $6,373 thousand for benefit recipients being provided a one-time (13th check) by October 1, 2015, rather than the assumed COLA of 1.00%.
[2] Several Assumptions were updated pursuant to an experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006	$ 602,051	$ 282,638	$ 1,478,412	$ 2,363,101	$ 2,209,468	100.0%	100.0%	89.6%	93.5%
2007	656,918	449,452	1,721,184	2,827,554	2,713,052	100.0	100.0	93.3	95.9
2008	649,840	514,933	1,792,985	2,957,758	3,080,056	100.0	100.0	100.0	104.1
2009	655,843	432,942	2,046,748	3,135,533	2,920,735	100.0	100.0	89.5	93.1
2010	750,575	483,117	2,380,867	3,614,559	3,422,554	100.0	100.0	91.9	94.7
2011	840,341	562,445	2,594,053	3,996,839	3,664,657	100.0	100.0	87.2	91.7
2012	882,942	662,558	2,792,809	4,338,309	3,936,455	100.0	100.0	85.6	90.7
2013	975,309	798,486	2,975,573	4,749,368	4,453,828	100.0	100.0	90.1	93.8
2014	1,102,686	777,287	3,357,020	5,236,993	5,035,232	100.0	100.0	94.0	96.1
2015	1,159,597	908,353	3,837,741	5,905,691	5,461,172	100.0	100.0	88.4	92.5

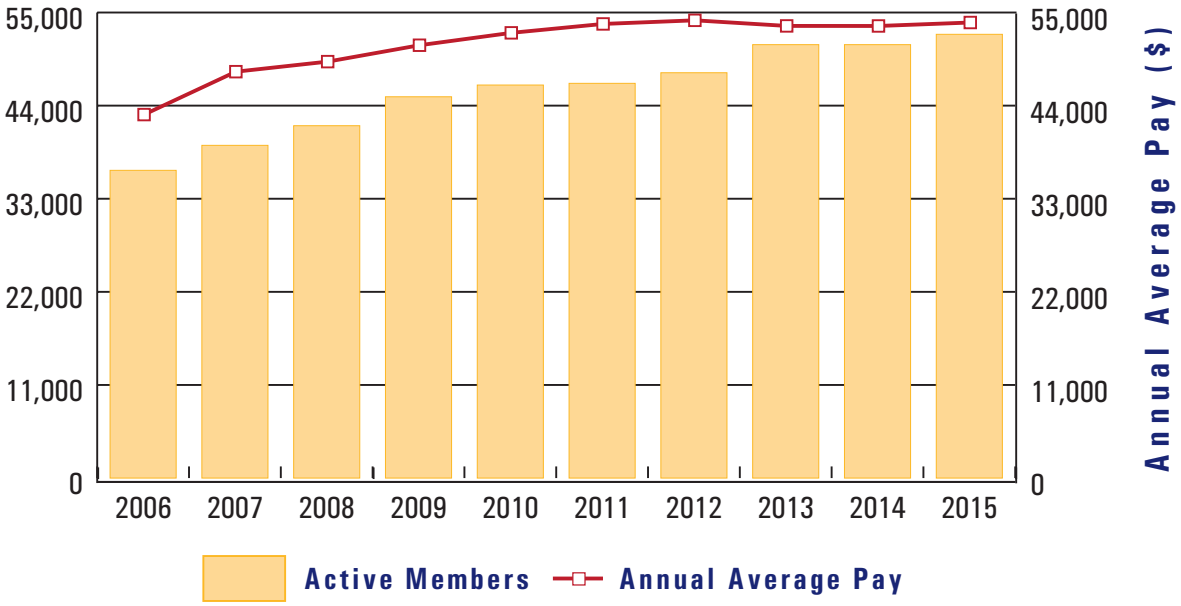
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll[1]	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006	36,356	$ 1,565,341	$ 43,056	5.0 %
2007	39,307	1,891,605	48,124	11.8
2008	41,628	2,052,719	49,311	2.5
2009	45,046	2,308,548	51,249	3.9
2010	46,433	2,447,509	52,711	2.9
2011	46,633	2,507,193	53,764	2.0
2012	47,885	2,594,952	54,191	0.8
2013	51,204	2,740,940	53,530	(1.2)
2014[2]	51,204	2,740,661	53,524	(0.0)
2015[2]	52,424	2,827,311	53,932	0.8

[1]Figures shown are the anticipated pay for the one-year period following the valuation date.
[2]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Active Members Per Year and Annual Average Pay



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

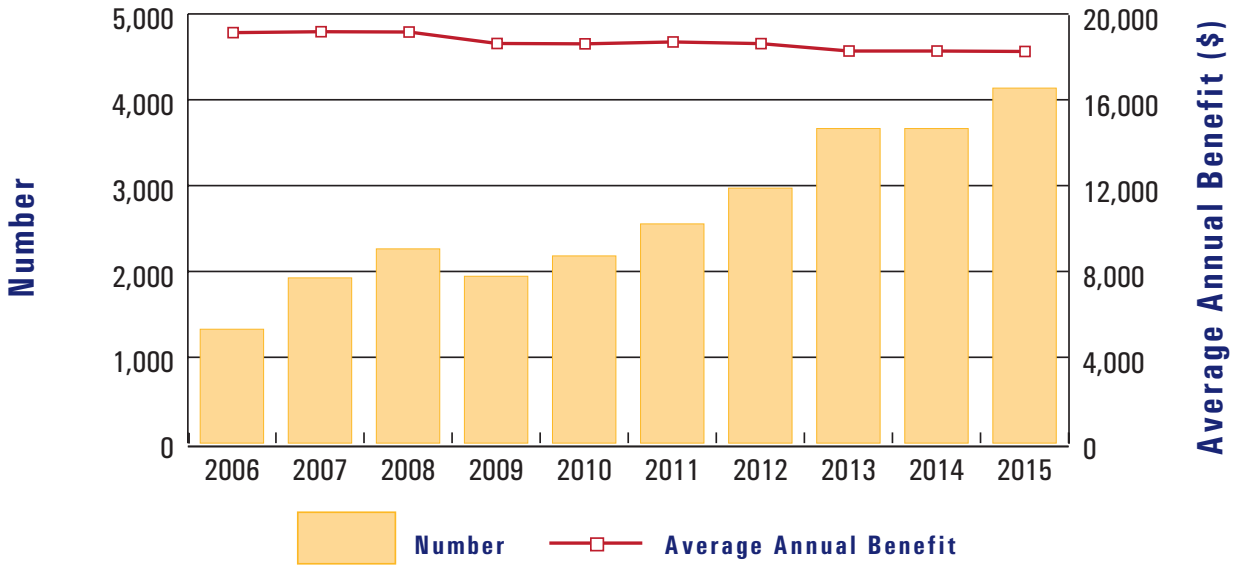
Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

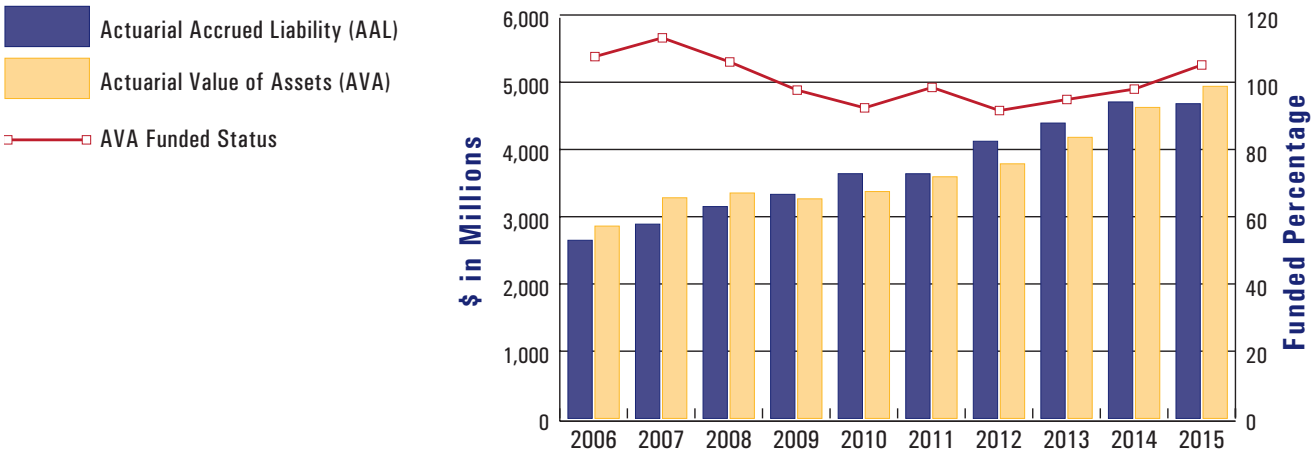
Valuation Date	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit[2]	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits[1]			
2006[3]	-	$ -	-	$ -	1,327	$ 25,459	23.7%	$ 19,185	1.7%
2007	197	3,658	22	416	1,925	37,013	45.4	19,228	0.2
2008	255	5,126	21	316	2,263	43,482	17.5	19,214	(0.1)
2009[4]	270	5,145	10	119	1,944	36,312	(16.5)	18,679	(2.8)
2010	249	4,859	12	129	2,181	40,701	12.1	18,662	(0.1)
2011	390	7,666	17	253	2,554	47,887	17.7	18,750	0.5
2012	433	8,132	16	236	2,971	55,475	15.8	18,672	(0.4)
2013	712	12,216	18	251	3,665	67,169	21.1	18,327	(1.8)
2014[5]	-	12,216	-	251	3,665	67,169	-	18,327	-
2015[5]	499	9,101	28	353	4,136	75,714	12.7	18,306	(0.1)

[1] *End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.*
[2] *Average annual benefit includes member annuities.*
[3] *Adds & Drops prior to fiscal year 2007 are not available.*
[4] *The end of year number of benefit recipients are not equal to prior end of year number of benefit recipients plus additions less removals due to reclassifications between Pre-1996 Account and 1996 Account.*
[5] *The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL – AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006 [3]	$ 2,649.5	$ 2,860.5	$ (211.0)	108.0%	$ 682.0	(30.9)%
2007 [3]	2,889.3	3,281.5	(392.2)	113.6	585.0	(67.0)
2008 [3]	3,150.8	3,352.7	(201.9)	106.4	635.0	(31.8)
2009 [4]	3,332.7	3,265.6	67.1	98.0	330.0	20.3
2010	3,639.6	3,374.4	265.2	92.7	670.0	39.6
2011	3,639.0	3,593.8	45.2	98.8	687.0	6.6
2012	4,122.4	3,786.6	335.8	91.9	690.0	48.7
2013	4,392.9	4,180.7	212.2	95.2	695.0	30.5
2014	4,707.0	4,625.5	81.5	98.3	710.6	11.5
2015	4,680.7	4,939.3	(258.6)	105.5	745.3	(34.7)

[1]The Unfunded Liability is calculated using the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section.
[3]Actuarial Valuations from 2006-2008 were based off of a December year end.
[4]Covered employee payroll represents only a half year of activity.

1977 Police Officers' and Firefighters' Pension and Disability Fund

INDIANA PUBLIC RETIREMENT SYSTEM

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the 1977 Police Officers' and Firefighters' Pension and Disability Fund were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2010 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The inflation assumption changed from 3.00% per year to 2.25% per year.

The future salary increase rate assumption decreased from 3.25% to 2.50% per year.

The future COLA assumption decreased from 2.25% to 2.00% per year.

The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) Blue Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

The termination assumption is a service-based table of rates. The rates at most years of service were decreased to reflect recent experience.

The disability assumption was adjusted to reflect recent experience.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes in plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:	
Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)
Interest on Member Contributions:	3.50 percent per year
Cost of Living Increases:	2.00 percent per year in retirement
Future Salary Increases:	2.50 percent per year

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Inflation: 2.25 percent per year

Demographic Assumptions: Based on 2010-2014 Experience

Mortality (Healthy and Disabled): RP-2014 (with MP-2014 improvement removed) Blue Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

Retirement:

Ages	Service < 32	Service > = 32
45-51	10%	100%
52-57	10	20
58-61	15	20
62-64	20	20
65-69	50	50
70+	100	100

Termination:

Service	Rate	Service	Rate
0	10.0%	6-8	2.0%
1	5.0	9-11	1.5
2	4.0	12-19	1.0
3-4	3.5	20+	2.0
5	2.5		

Disability:

Age	Rate	Age	Rate
< 32	0.10%	48	0.42%
33	0.12	49	0.44
34	0.14	50	0.46
35	0.16	51	0.48
36	0.18	52	0.50
37	0.20	53	0.52
38	0.22	54	0.54
39	0.24	55	0.56
40	0.26	56	0.58
41	0.28	57	0.60
42	0.30	58	0.62
43	0.32	59	0.64
44	0.34	60	0.66
45	0.36	61	0.68
46	0.38	62+	0.70
47	0.40		

Spouse/Beneficiary: 80 percent of male members and 50 percent of female members are assumed to be married or to have a dependent beneficiary. Male members are assumed to be three (3) years older than females and female members are assumed to be the same age as males.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Disability Retirement:	For members hired after 1989 that become disabled, impairments are assumed to be 45 percent Class 1 (at 65 percent of salary), 10 percent Class 2 (at 50 percent of salary), and 45 percent Class 3 (at 36 percent of salary).
Pre-Retirement Death:	Of active member deaths, 10 percent are assumed to be in the line of duty and 90 percent are other than in the line of duty. Additionally, all deaths among retired and disabled members are other than in the line of duty.

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method:	Entry Age Normal – Level Percent of Payroll The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date. This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.
Amortization Method:	For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities. For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.
Actuarial (Liability) Valuation Method:	Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.
Asset Valuation Method:	Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA. Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 81,522**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	33,100
Actuarial Accrued Liabilities Experience[1]	(61,640)
Amortization of Existing Bases	(1,817)
Actuarial Assumption & Methodology Changes[2]	(309,801)
Plan Provision Changes	-
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ (258,636)**

[1]Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA), which is a gain of approximately $34,326 thousand as benefit recipients received 0.00% COLA effective July 1, 2015, rather than the assumed 2.25%.
[2]Several assumptions were updated pursuant to an experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006[1]	$ 455,476	$ 546,628	$ 1,647,421	$ 2,649,525	$ 2,860,512	100.0%	100.0%	100.0%	108.0%
2007[1]	498,662	655,827	1,734,806	2,889,295	3,281,480	100.0	100.0	100.0	113.6
2008[1]	534,303	765,909	1,850,615	3,150,827	3,352,705	100.0	100.0	100.0	106.4
2009	571,534	793,167	1,967,985	3,332,686	3,265,598	100.0	100.0	96.6	98.0
2010	634,865	859,626	2,145,178	3,639,669	3,374,438	100.0	100.0	87.6	92.7
2011	679,849	970,676	1,988,431	3,638,956	3,593,787	100.0	100.0	97.7	98.8
2012	728,892	1,135,538	2,258,006	4,122,436	3,786,595	100.0	100.0	85.1	91.9
2013	782,124	1,288,457	2,322,366	4,392,947	4,180,704	100.0	100.0	90.9	95.2
2014	809,877	1,280,920	2,616,200	4,706,997	4,625,475	100.0	100.0	96.9	98.3
2015	832,760	1,362,021	2,485,913	4,680,694	4,939,330	100.0	100.0	110.4	105.5

[1]As of December 31 instead of June 30

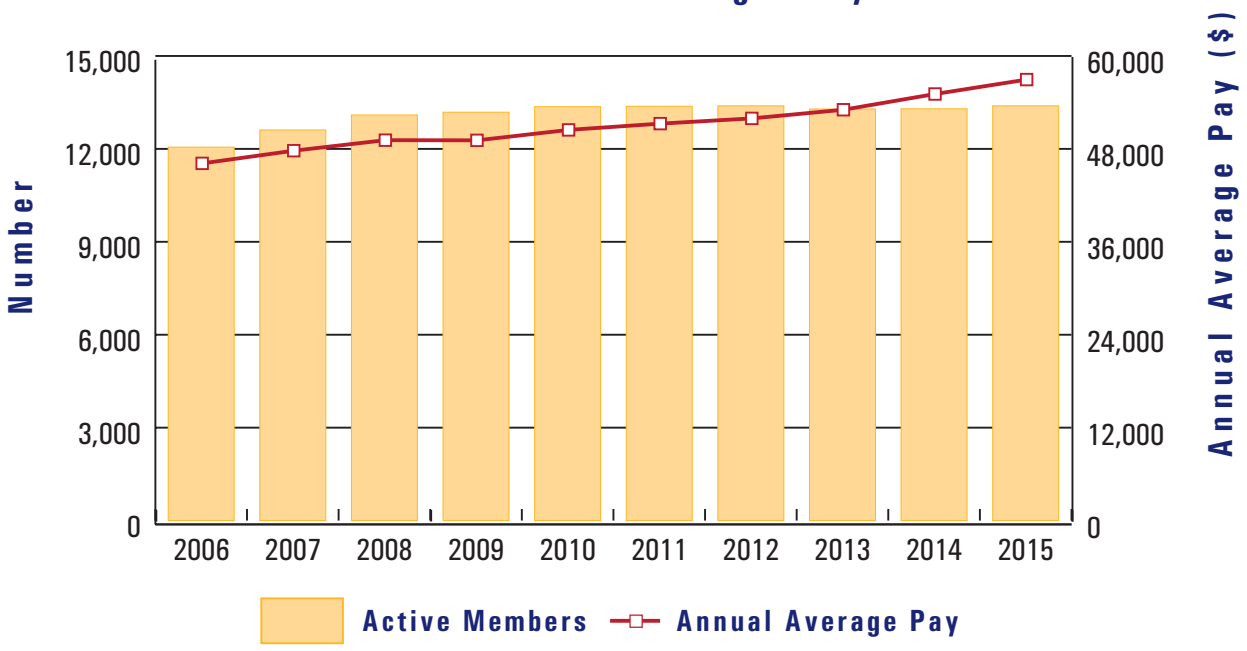
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll[1]	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006[2]	12,056	$ 557,644	$ 46,254	3.9 %
2007[2]	12,611	603,963	47,892	3.5
2008[2]	13,095	644,936	49,251	2.8
2009	13,184	649,018	49,228	-
2010	13,362	675,797	50,576	2.7
2011	13,376	687,342	51,386	1.6
2012	13,390	697,111	52,062	1.3
2013	13,287	706,603	53,180	2.1
2014[3]	13,295	734,024	55,211	3.8
2015[3]	13,390	764,215	57,074	3.4

[1]Figures shown are the anticipated pay for the one-year period following the valuation date.
[2]As of December 31 instead of June 30.
[3]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Active Members Per Year and Annual Average Pay



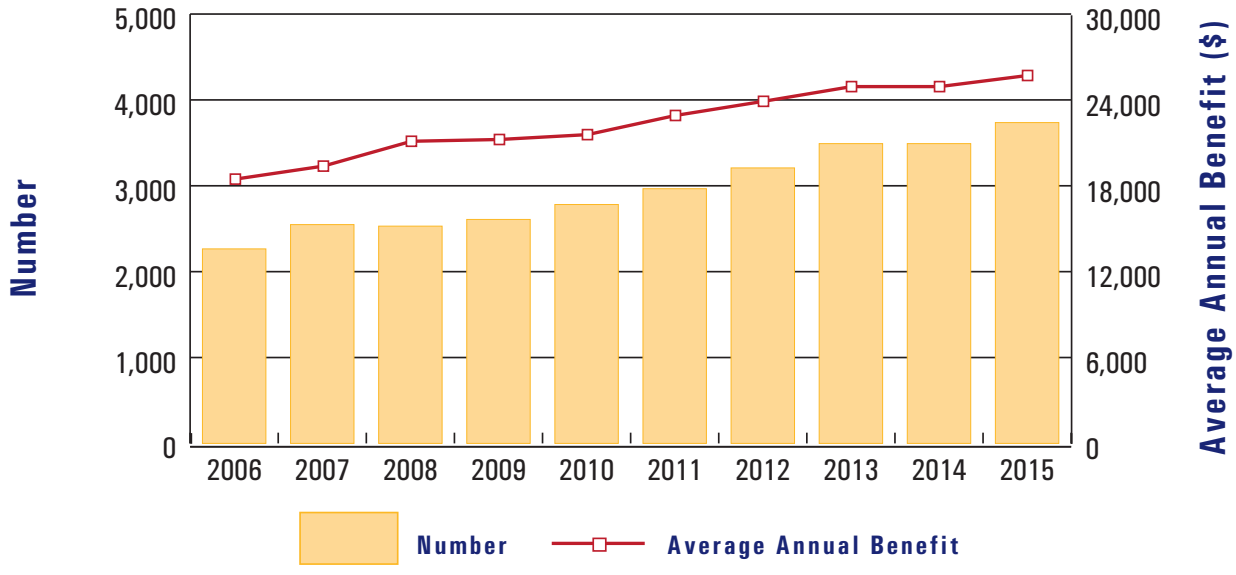
Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

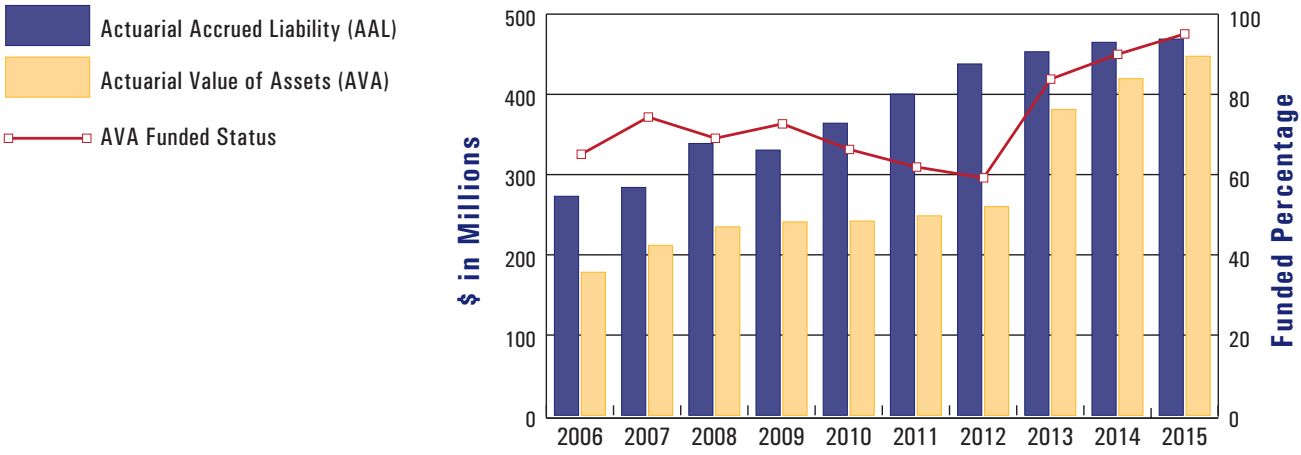
Valuation Date	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits[1]			
2006[2]	172	$ 3,860	34	$ 592	2,265	$ 41,973	8.6%	$ 18,531	2.0%
2007[2]	333	8,101	50	886	2,548	49,537	18.0	19,442	4.9
2008[2]	255	5,861	273	4,565	2,530	53,588	8.2	21,181	8.9
2009	102	2,571	24	479	2,608	55,564	3.7	21,305	0.6
2010	208	4,918	34	641	2,782	60,220	8.4	21,646	1.6
2011	218	6,179	34	609	2,966	68,179	13.2	22,987	6.2
2012	281	7,900	39	814	3,208	76,917	12.8	23,977	4.3
2013	326	10,098	43	845	3,491	87,301	13.5	25,008	4.3
2014[3]	-	-	-	-	3,491	87,301	-	25,008	-
2015[3]	283	8,858	38	727	3,736	96,336	10.3	25,786	3.1

[1]*End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.*
[2]*As of December 31 instead of June 30.*
[3]*The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL–AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006	$ 273.0	$ 178.3	$ 94.7	65.3%	$ 34.1	277.7%
2007	284.0	211.8	72.2	74.6	29.7	243.0
2008	338.8	234.9	103.9	69.3	33.7	308.1
2009	330.6	241.0	89.6	72.9	36.2	247.5
2010	364.1	242.1	122.0	66.5	36.7	332.2
2011	400.3	248.6	151.7	62.1	45.8	331.5
2012	437.9	260.1	177.8	59.4	45.1	393.9
2013	453.1	381.2	71.9	84.1	47.6	151.1
2014	464.9	419.6	45.3	90.3	46.0	98.5
2015	468.9	447.5	21.4	95.4	48.6	44.1

[1]The Unfunded Liability uses the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the Judges' Retirement System were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2010 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The inflation assumption decreased from 3.00% to 2.25% per year.

The future salary increase assumption decreased from 4.00% to 2.50% per year.

The cost of living increase assumption decreased from 4.00% to 2.50% per year.

The mortality assumption changed from the 2013 IRS Statis Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

The retirement assumption changed from an age-based table to an age and service-based table, reflecting higher rates of retirement after 22 years of service.

The termination assumption changed from an age-based table to a constant 3% per year for all members.

The dependent assumption was adjusted to reflect recent experience.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes to the plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:	
Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)
Interest on Member Contributions:	3.50 percent per year
Cost of Living Increases:	2.50 percent per year in deferral and retirement
Future Salary Increases:	2.50 percent per year
Inflation:	2.25 percent per year

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Demographic Assumptions: Based on 2010-2014 Experience

Mortality (Healthy and Disabled): RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

Retirement:

Age	Service < 22	Age	Service > =22
62	25%	55-74	70%
63	15	75+	100
64	10		
65	50		
66-74	30		
75+	100		

Termination: 3 percent per year for all members prior to retirement eligibility.

Disability: 1964 OASDI Table. Illustrative rates shown below:

Age	Rate
20	0.060%
25	0.085
30	0.110
35	0.147
40	0.220
45	0.360
50	0.606
55	1.009
60	1.627
65+	0.000

Spouse/Beneficiary: 90 percent of members are assumed to be married or to have a dependent beneficiary. Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Amortization Method:	For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities. For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.
Actuarial (Liability) Valuation Method:	Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.
Asset Valuation Method:	Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA. Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 45,287**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	644
Actuarial Accrued Liabilities Experience[1]	8,411
Amortization of Existing Bases	(986)
Actuarial Assumption & Methodology Changes[2]	(31,926)
Plan Provision Changes	-
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ 21,430**

[1]Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA), which is a gain of approximately $7,655 thousand as benefit recipients received 2.20% COLA effective July 1, 2015, rather than the assumed 4.00%.
[2]Several assumptions were updated pursuant to an experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006	$ 20,861	$ 134,272	$ 117,865	$ 272,998	$ 178,276	100.0%	100.0%	19.6%	65.3%
2007	21,276	143,645	119,074	283,995	211,747	100.0	100.0	39.3	74.6
2008	22,243	155,177	161,329	338,749	234,881	100.0	100.0	35.6	69.3
2009	21,649	170,962	137,940	330,551	240,954	100.0	100.0	35.0	72.9
2010	23,138	182,023	158,962	364,123	242,143	100.0	100.0	23.3	66.5
2011	24,359	198,797	177,118	400,274	248,623	100.0	100.0	14.4	62.1
2012	27,699	205,341	204,814	437,854	260,096	100.0	100.0	13.2	59.4
2013[1]	29,060	224,132	199,918	453,110	381,240	100.0	100.0	64.1	84.1
2014	32,060	216,044	216,751	464,855	419,568	100.0	100.0	79.1	90.3
2015	32,383	210,020	226,542	468,945	447,514	100.0	100.0	90.5	95.4

[1]In accordance with Legislation passed during March 2012, the State appropriated $90,187 thousand during FY2013 to reach a funded status of 80.0 percent based on the actuarial valuation as of June 30, 2012.

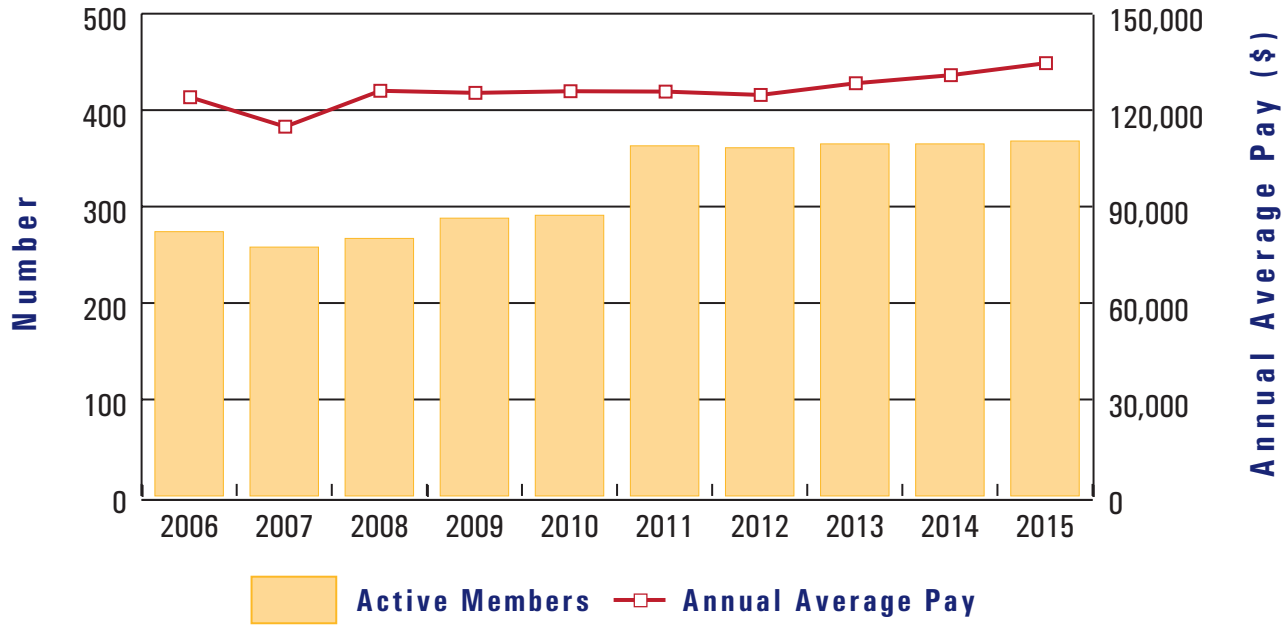
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll[1]	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006	274	$ 34,065	$ 124,323	8.8%
2007	258	29,712	115,163	(7.4)
2008	267	33,729	126,327	9.7
2009	288	36,196	125,680	(0.5)
2010	291	36,722	126,192	0.4
2011	363	45,764	126,072	(0.1)
2012	361	45,138	125,036	(0.8)
2013	365	46,967	128,676	2.9
2014[2]	365	47,883	131,186	2.0
2015[2]	368	49,651	134,921	2.8

[1]Figures shown are the anticipated pay for the one-year period following the valuation date.
[2]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Active Members Per Year and Annual Average Pay



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

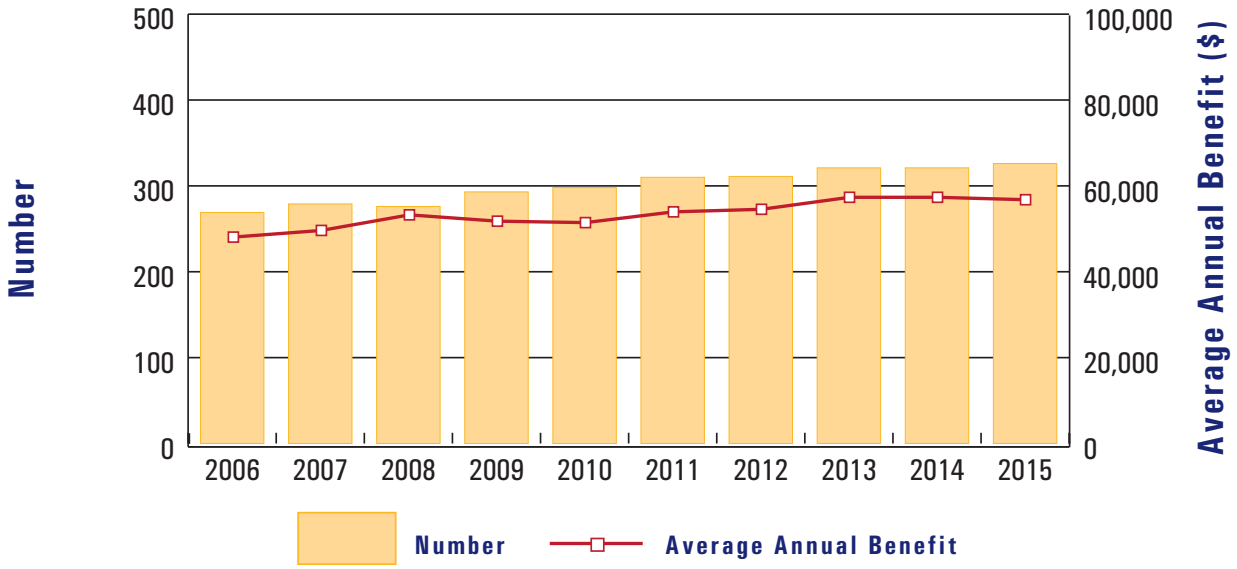
Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

Actuarial Valuation as of June 30	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits[1]			
2006	12	$ 868	7	$ 474	269	$ 12,983	5.8%	$ 48,266	3.8%
2007	18	976	8	409	279	13,899	7.1	49,819	3.2
2008	23	1,257	26	991	276	14,754	6.1	53,455	7.3
2009	74	3,744	57	1,835	293	15,230	3.2	51,978	(2.8)
2010	11	627	6	339	298	15,390	1.1	51,644	(0.6)
2011	21	1,452	9	200	310	16,787	9.1	54,152	4.9
2012	7	444	6	194	311	17,028	1.4	54,751	1.1
2013	24	1,798	14	442	321	18,474	8.5	57,551	5.1
2014[2]	-	-	-	-	321	18,474	-	57,551	-
2015[2]	10	494	5	195	326	18,578	0.6	56,987	(1.0)

[1] *End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.*
[2] *The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

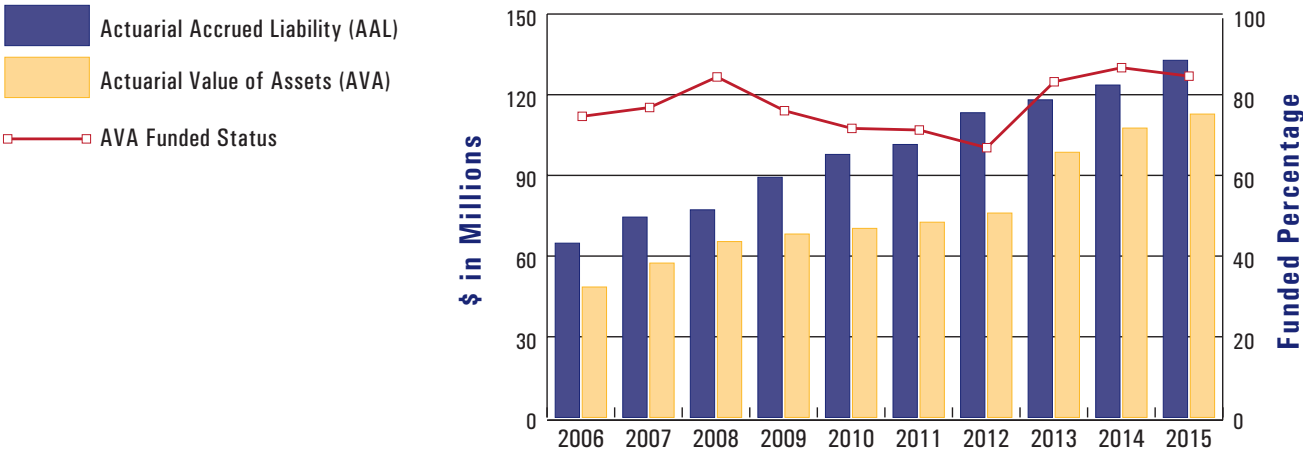
Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



State Excise Police, Gaming Agent, Gaming Control Officer & Conservation Enforcement Officers' Retirement Plan

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL – AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006	$ 64.8	$ 48.5	$ 16.3	74.9%	$ 15.6	104.3%
2007	74.5	57.4	17.0	77.1	21.0	81.1
2008	77.2	65.4	11.8	84.7	23.7	49.8
2009	89.3	68.2	21.1	76.3	25.5	82.7
2010	97.8	70.3	27.5	71.9	25.3	108.7
2011	101.5	72.6	28.9	71.5	25.0	115.6
2012	113.3	76.0	37.3	67.1	24.3	153.5
2013	118.1	98.6	19.5	83.5	24.7	79.0
2014	123.6	107.6	16.0	87.0	25.8	62.1
2015	132.8	112.8	20.0	84.9	25.1	79.7

[1]The Unfunded Liability uses the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section.

State Excise Police, Gaming Agent, Gaming Control Officer & Conservation Enforcement Officers' Retirement Plan

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2010 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The inflation assumption decreased from 3.00% to 2.25% per year.

The future salary increase rate assumption decreased from 3.25% to 2.50% per year.

The mortality assumption changed from the 2013 IRS Static Mortality projected (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) Blue Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

The retirement assumption changed to reflect higher likelihood of retirement at certain ages.

The termination assumption changed from an age-based table to a service-based table.

The dependent assumption was adjusted to reflect recent experience.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes to the plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions:

Interest Rate / Investment Return:

Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)
Interest on Member Contributions:	3.50 percent per year
Cost of Living Increases:	1.00 percent per year in retirement
Future Salary Increases:	2.50 percent per year
Inflation:	2.25 percent per year

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Demographic Assumptions: Based on 2010-2014 Experience

Mortality (Healthy and Disabled): RP-2014 Blue Collar Set Mortality Table with mortality improvement since 2006 using scale MP-2014 removed and projected on a fully generational basis using the future mortality improvement scale inherent in the mortality projection included in the Social Security Administration's 2014 Trustee report.

Retirement:

Age	Rate	Age	Rate
45	3%	51-59	15%
46-49	2	60-64	40
50	3	> = 65	100

Termination:

Years of Service	Rate
0-1	10.00%
2	9.00
3	8.00
4	7.00
5	6.00
6	5.00
7	4.00
8	3.00
9	2.00
> = 10	1.00

Disability: 150 percent of 1964 OASDI Table. Illustrative rates shown below:

Age	Rate
20	0.0900%
25	0.1275
30	0.1650
35	0.2205
40	0.3300
45	0.5400
50	0.9090
55	1.5135
60	2.4405
65 +	0.0000

Spouse/Beneficiary: 90 percent of members are assumed to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than females.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method:	Entry Age Normal – Level Percent of Payroll The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date. This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.
Amortization Method:	For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities. For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.
Actuarial (Liability) Valuation Method:	Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.
Asset Valuation Method:	Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA. Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 16,037**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	775
Actuarial Accrued Liabilities Experience[1]	846
Amortization of Existing Bases	(296)
Actuarial Assumption & Methodology Changes[2]	2,669
Plan Provision Changes	-
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ 20,031**

[1]Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA), which is a gain of approximately $597 thousand as benefit recipients being provided a one-time (13th check) by October 1, 2015, rather than the assumed 1.00%.
[2] Several assumptions were updated pursuant to an experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006	$ 3,644	$ 20,870	$ 40,251	$ 64,765	$ 48,496	100.0%	100.0%	59.6%	74.9%
2007	3,527	24,606	46,318	74,451	57,414	100.0	100.0	63.2	77.1
2008	4,314	28,902	43,961	77,177	65,375	100.0	100.0	73.2	84.7
2009	5,274	35,039	48,983	89,296	68,170	100.0	100.0	56.9	76.3
2010	6,220	36,044	55,598	97,862	70,327	100.0	100.0	50.5	71.9
2011	6,271	46,695	48,568	101,534	72,599	100.0	100.0	40.4	71.5
2012	6,532	53,929	52,822	113,283	76,007	100.0	100.0	29.4	67.1
2013[1]	7,494	56,028	54,575	118,097	98,608	100.0	100.0	64.3	83.5
2014	8,042	54,626	60,933	123,601	107,563	100.0	100.0	73.7	87.0
2015	8,456	61,503	62,837	132,796	112,765	100.0	100.0	68.1	84.9

[1]In accordance with Legislation passed during March 2012, the State appropriated $14,619 thousand during FY2013 to reach a funded status of 80.0 percent based on the actuarial valuation as of June 30, 2012.

State Excise Police, Gaming Agent, Gaming Control Officer & Conservation Enforcement Officers' Retirement Plan

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

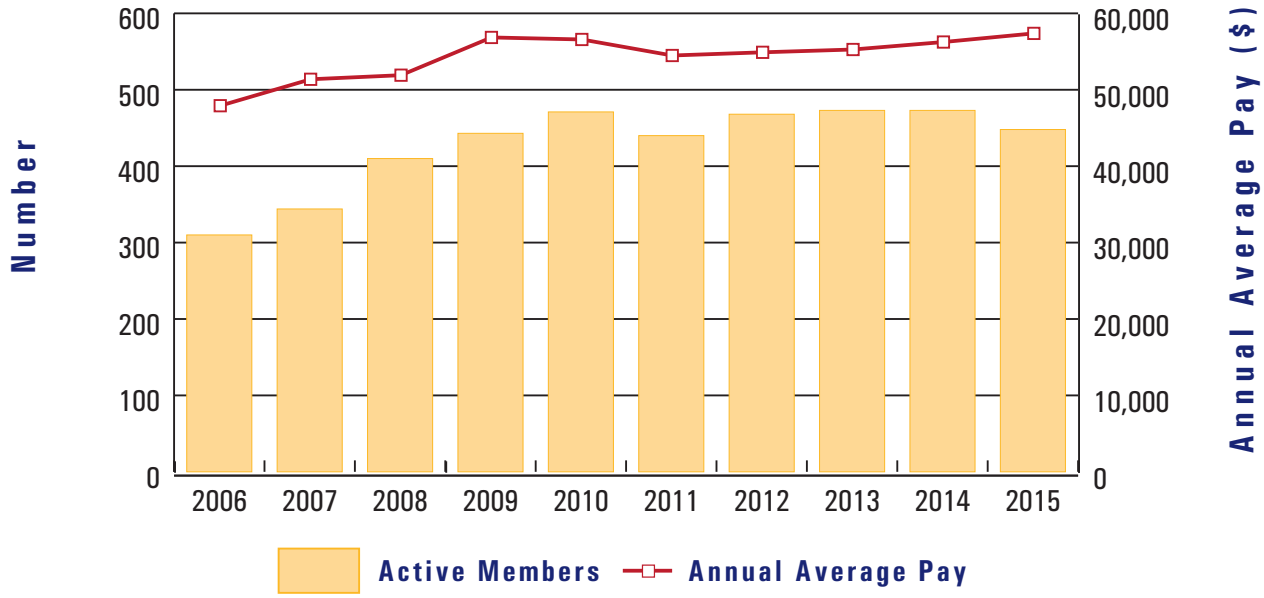
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll[1]	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006	310	$ 14,892	$ 48,038	(4.8)%
2007	344	17,715	51,497	7.2
2008	410	21,333	52,033	1.0
2009	443	25,238	56,971	9.5
2010	471	26,709	56,707	(0.5)
2011	440	24,028	54,609	(3.7)
2012	468	25,752	55,026	0.8
2013	473	26,201	55,393	0.7
2014[2]	473	26,664	56,372	1.8
2015[2]	448	25,761	57,502	2.0

[1] *Figures shown are the anticipated pay for the one-year period following the valuation date.*
[2] *The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

Total Number of Active Members Per Year and Annual Average Pay



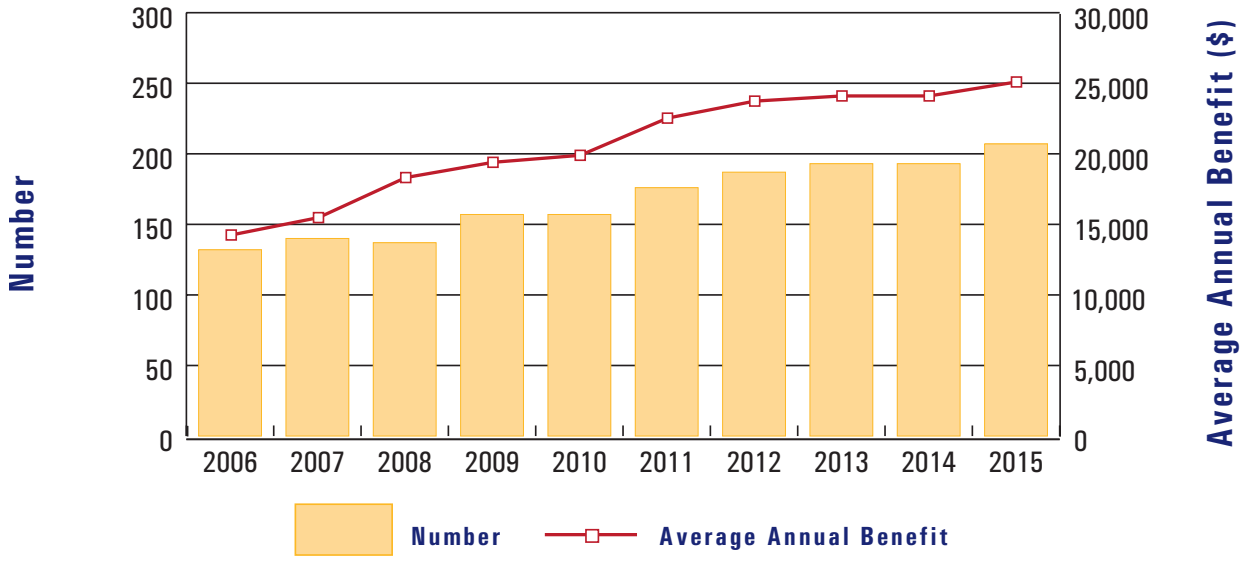
Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

Actuarial Valuation as of June 30	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits[1]			
2006	5	$ 127	1	$ 26	132	$ 1,888	5.6%	$ 14,304	2.4%
2007	13	359	5	74	140	2,176	15.2	15,539	8.6
2008	9	302	12	119	137	2,518	15.8	18,382	18.3
2009	59	748	39	258	157	3,056	21.3	19,465	5.9
2010	6	136	6	49	157	3,134	2.6	19,962	2.6
2011	22	902	3	23	176	3,978	26.9	22,602	13.2
2012	14	495	3	14	187	4,452	11.9	23,810	5.3
2013	8	253	2	9	193	4,666	4.8	24,177	1.5
2014[2]	-	-	-	-	193	4,666	-	24,177	-
2015[2]	15	556	1	5	207	5,210	11.7	25,170	4.1

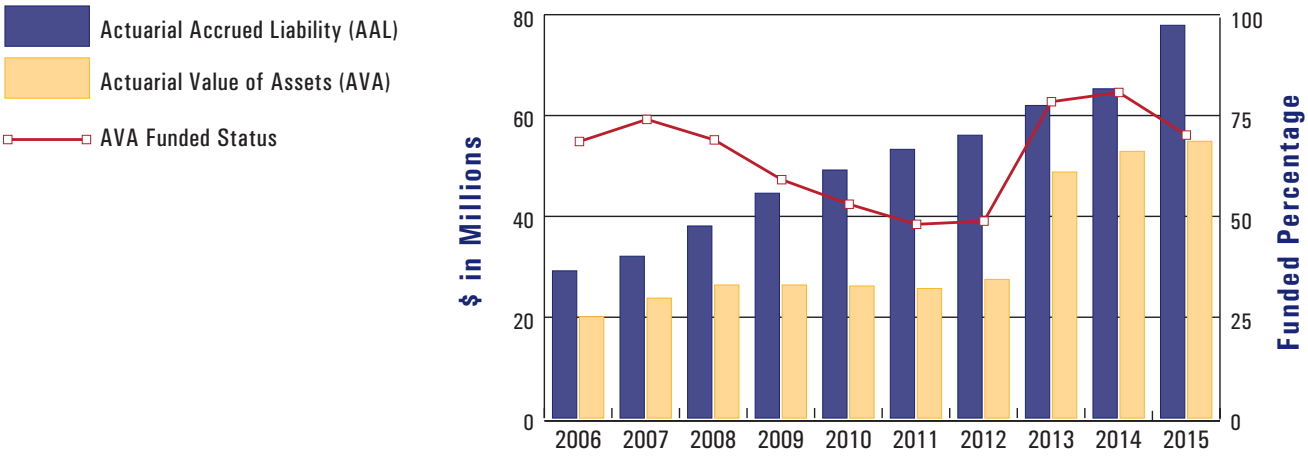
[1]End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.
[2]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL – AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006	$ 29.2	$ 20.1	$ 9.1	68.8%	$ 19.2	47.4%
2007	32.1	23.8	8.2	74.3	18.1	45.5
2008	38.1	26.4	11.7	69.2	20.6	56.8
2009	44.6	26.4	18.2	59.3	20.8	87.6
2010	49.2	26.2	23.0	53.2	21.0	109.4
2011	53.3	25.7	27.6	48.2	18.1	152.6
2012	56.1	27.5	28.6	49.0	21.7	131.8
2013	62.0	48.8	13.2	78.7	18.8	70.2
2014	65.3	52.9	12.4	81.0	20.6	60.2
2015	77.9	54.9	23.0	70.4	21.1	108.8

[1]The Unfunded Liability uses the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section.

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the Prosecuting Attorneys' Retirement Fund were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2010 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board also adopted the funding policy in April 2014. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The inflation assumption changed from 3.00% per year to 2.25% per year.

The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

The retirement assumption changed from an age and points-based table to an age and service-based table, reflecting higher rates of retirement after 22 years of service.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes to the plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)
Interest on Member Contributions:	3.50 percent per year
Cost of Living Increases:	N/A
Future Salary Increases:	4.00 percent per year
Inflation:	2.25 percent per year

Demographic Assumptions: Based on 2010-2014 experience

Mortality (Healthy and Disabled): RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

Retirement:

Age	Service < 22	Service > =22
55-61	0%	70%
62-64	20	70
> =65	100	100

Termination: 10 percent per year for all members prior to retirement eligibility.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Disability:

Age	Male	Female
20	0.0067%	0.0050%
30	0.0208	0.0158
40	0.0646	0.0496
50	0.2005	0.1556
60	0.6220	0.4881
70	0.1000	0.1000
71+	0.0000	0.0000

Spouse/Beneficiary: 90 percent of participants are assumed either to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than their spouses.

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Amortization Method: For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Actuarial (Liability) Valuation Method: Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

Asset Valuation Method: Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA.

Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 12,400**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	1,045
Actuarial Accrued Liabilities Experience	4,551
Amortization of Existing Bases	(200)
Actuarial Assumption & Methodology Changes[1]	5,216
Plan Provision Changes	–
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ 23,012**

[1]Several assumptions were updated pursuant to the experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006	$ 14,893	$ 2,252	$ 12,039	$ 29,184	$ 20,053	100.0%	100.0%	24.2%	68.7%
2007	16,014	3,192	12,846	32,052	23,815	100.0	100.0	35.9	74.3
2008	17,428	5,173	15,468	38,069	26,350	100.0	100.0	24.2	69.2
2009	19,239	10,384	15,009	44,632	26,467	100.0	69.6	-	59.3
2010	20,999	12,557	15,618	49,174	26,166	100.0	41.1	-	53.2
2011	21,592	16,806	14,854	53,252	25,651	100.0	24.2	-	48.2
2012	23,406	18,660	14,014	56,080	27,501	100.0	21.9	-	49.0
2013[1]	25,371	22,004	14,565	61,940	48,762	100.0	100.0	9.5	78.7
2014	26,654	22,665	16,017	65,336	52,936	100.0	100.0	22.6	81.0
2015	25,479	26,636	25,746	77,861	54,848	100.0	100.0	10.6	70.4

[1]In accordance with Legislation passed during March 2012, the State appropriated $17,363 thousand during FY2013 to reach a funded status of 80.0 percent based on the actuarial valuation as of June 30, 2012..

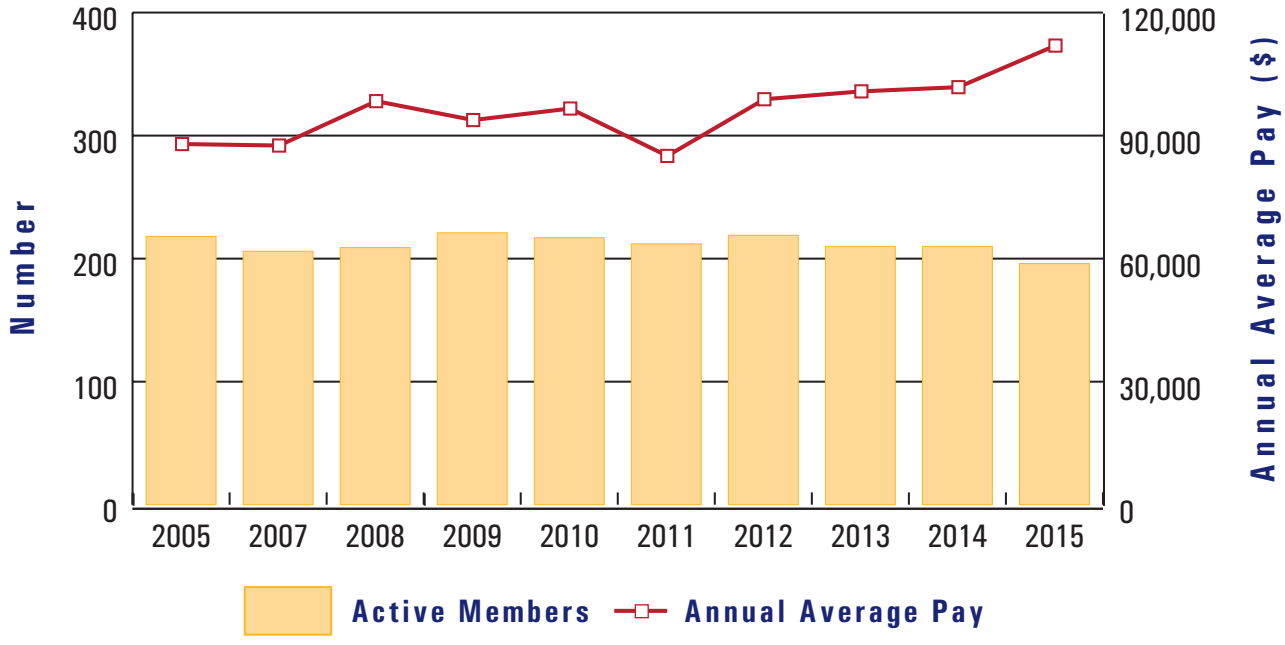
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll[1]	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006	218	$ 19,225	$ 88,188	16.5%
2007	206	18,092	87,825	(0.4)
2008	209	20,617	98,646	12.3
2009	221	20,782	94,037	(4.7)
2010	217	21,016	96,848	3.0
2011	212	18,082	85,292	(11.9)
2012	219	21,705	99,110	16.2
2013	210	21,217	101,033	1.9
2014[2]	210	21,432	102,057	1.0
2015[2]	196	21,991	112,198	9.9

[1]Figures shown are the anticipated pay for the one-year period following the valuation date.
[2]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Active Members Per Year and Annual Average Pay



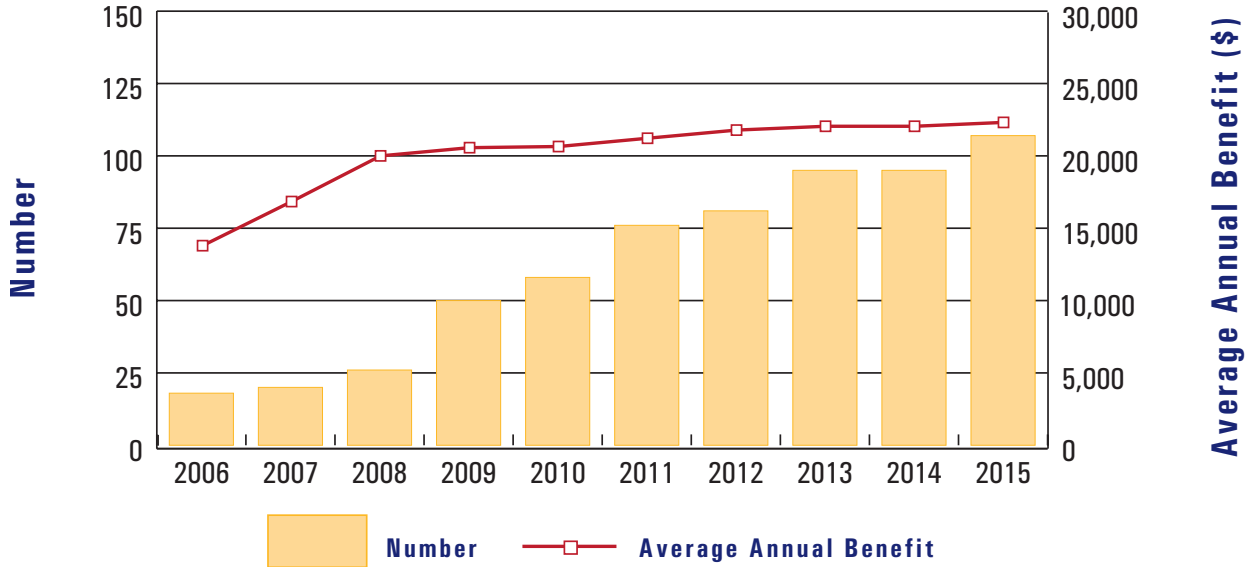
Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

Actuarial Valuation as of June 30	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits[1]			
2006	-	$ -	-	$ -	18	$ 249	0.1%	$ 13,850	0.1%
2007	4	121	2	32	20	338	35.6	16,905	22.1
2008	7	207	1	14	26	522	54.3	20,068	18.7
2009	26	536	2	26	50	1,032	97.8	20,636	2.8
2010	9	187	1	16	58	1,201	16.4	20,715	0.4
2011	19	473	1	16	76	1,618	34.7	21,288	2.8
2012	6	178	1	27	81	1,770	9.4	21,853	2.7
2013	15	362	1	27	95	2,101	18.7	22,118	1.2
2014[2]	-	-	-	-	95	2,101	-	22,118	-
2015[2]	14	319	2	14	107	2,395	14.0	22,385	1.2

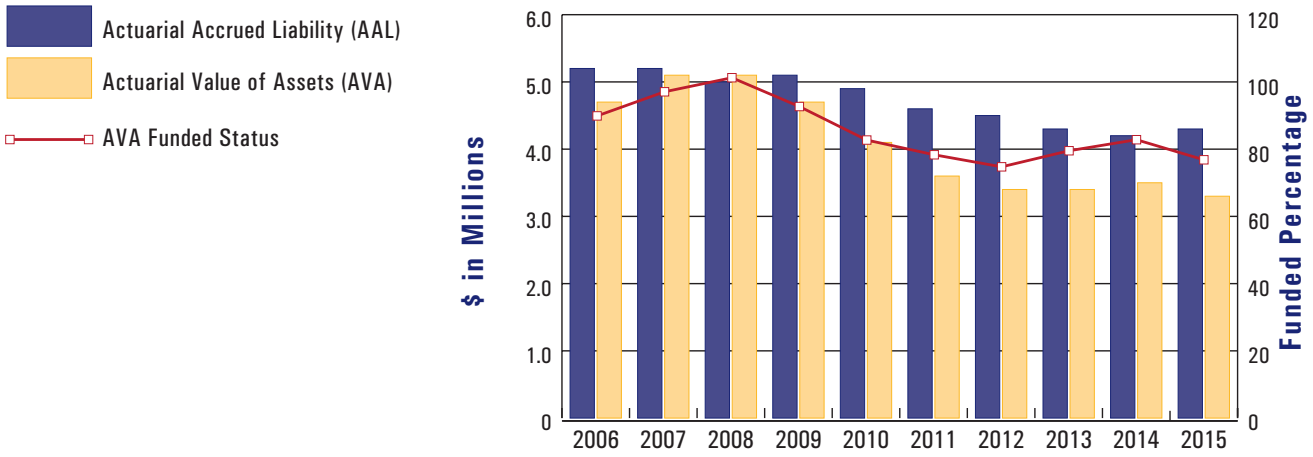
[1] *End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.*
[2] *The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Historical Summary of Actuarial Valuation Results



(dollars in millions)

Actuarial Valuation as of June 30	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability[1] (AAL – AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll[2]	Unfunded Liability[1] as a percentage of Covered Employee Payroll
2006	$ 5.2	$ 4.7	$ 0.5	90.2%	N/A	N/A
2007	5.2	5.1	0.1	97.4	N/A	N/A
2008	5.0	5.1	(0.1)	101.6	N/A	N/A
2009	5.1	4.7	0.4	93.0	N/A	N/A
2010	4.9	4.1	0.8	83.0	N/A	N/A
2011	4.6	3.6	1.0	78.6	N/A	N/A
2012	4.5	3.4	1.1	75.0	N/A	N/A
2013	4.3	3.4	0.9	79.8	N/A	N/A
2014	4.2	3.5	0.7	83.1	N/A	N/A
2015	4.3	3.3	1.0	77.1	N/A	N/A

[1]The Unfunded Liability uses the Actuarial Value of Assets (AVA), which is different than Net Pension Liability in the Financial Section that uses the Plan Fiduciary Net Position, also known as the Market Value of Assets (MVA).
[2]A closed plan with no Covered Employee Payroll.

INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2015 valuation of the Legislators' Defined Benefit Plan were adopted by the INPRS Board in April 2015. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2010 through June 30, 2014, and were first used in the June 30, 2015 valuation. The INPRS Board adopted a funding policy in April 2014, and updated the policy in October 2015 to address over funded plans.

Changes in Actuarial Assumptions

The salary increase and inflation assumptions changed from 3.00% to 2.25% per year.

The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

Changes in Plan Provisions

There were no changes to the plan provisions that impacted the pension benefits during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.75 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.75 percent (net of investment expenses)
Cost of Living Increases:	1.00 percent per year in retirement
Future Salary Increases:	2.25 percent per year
Inflation:	2.25 percent per year

Demographic Assumptions: Based on 2010-2014 Experience

Mortality (Healthy and Disabled): RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

Retirement:

Age	Rate
55	10%
56-57	8
58-61	2
62-64	5
65+	100

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Termination:

Sarason T-2 Tables. Illustrative rates shown below:

Age	Rate
20	5.4384%
25	5.2917
30	5.0672
35	4.6984
40	3.5035
45	1.7686
50	0.4048
55+	0.0000

Disability:

75 percent of 1964 OASDI Tables. Illustrative rates shown below:

Age	Rate
20	0.045%
25	0.064
30	0.083
35	0.111
40	0.165
45	0.270
50	0.454
55	0.757
60	1.220
65+	0.000

Spouse/Beneficiary:

90 percent of participants are assumed either to be married or to have a dependent beneficiary.

Males are assumed to be three (3) years older than their spouses.

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions, continued

Actuarial Methods

Actuarial Cost & Amortization Methods:

Funding:	Traditional Unit Credit
	The normal cost is calculated separately for each active member and is equal to actuarial present value of additional benefits expected to be accrued during the year following the valuation date. The actuarial accrued liability on any valuation date is the actuarial present value of the benefits earned for service prior to the valuation date. Since the benefits for all members of the Legislator's Defined Benefit Plan are fixed and no longer increasing with future service credit or future salary increases, applying the Traditional Unit Credit cost method results in the Actuarial Accrued Liability being equal to the Present Value of Future Benefits (i.e. all benefits are treated as though they are attributable to past service) and the Normal Cost being equal to $0. This is consistent with the actual status of member benefit accruals.
	Gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities
Accounting & Financial Reporting:	Entry Age Normal- Level Percent of Payroll
	The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.
	Gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.
Actuarial (Liability) Valuation Method:	Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.
Asset Valuation Method:	Funding uses the Actuarial Value of Assets (AVA), which is equal to a four-year smoothing of gains and losses on the Market Value of Assets (MVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the MVA.
	Accounting and financial reporting uses the Market Value of Assets (MVA) in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section.

Analysis of Financial Experience

(dollars in thousands)

	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2014	**$ 706**
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	63
Actuarial Accrued Liabilities Experience[1]	(70)
Amortization of Existing Bases	(33)
Actuarial Assumption & Methodology Changes[2]	325
Plan Provision Changes	-
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2015	**$ 991**

[1]Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. A significant assumption is the Cost-of-Living Adjustment (COLA), which is a gain of approximately $36 thousand as benefit recipients received 0.00% COLA effective January 1, 2016, rather than the assumed 1.00%.

[2] Several assumptions were updated pursuant to an experience study completed in April 2015.

Solvency Test

(dollars in thousands)

	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2006	-	$ 2,270	$ 2,962	$ 5,232	$ 4,721	N/A	100.0%	82.8%	90.2%
2007	-	2,432	2,737	5,169	5,035	N/A	100.0	95.1	97.4
2008	-	2,258	2,781	5,039	5,120	N/A	100.0	100.0	101.6
2009	-	3,147	1,940	5,087	4,730	N/A	100.0	81.6	93.0
2010	-	3,017	1,892	4,909	4,075	N/A	100.0	55.9	83.0
2011	-	3,037	1,584	4,621	3,634	N/A	100.0	37.7	78.6
2012	-	3,031	1,472	4,503	3,377	N/A	100.0	23.5	75.0
2013	-	3,192	1,103	4,295	3,428	N/A	100.0	21.4	79.8
2014	-	3,076	1,097	4,173	3,467	N/A	100.0	35.7	83.1
2015	-	3,213	1,115	4,328	3,336	N/A	100.0	11.1	77.1

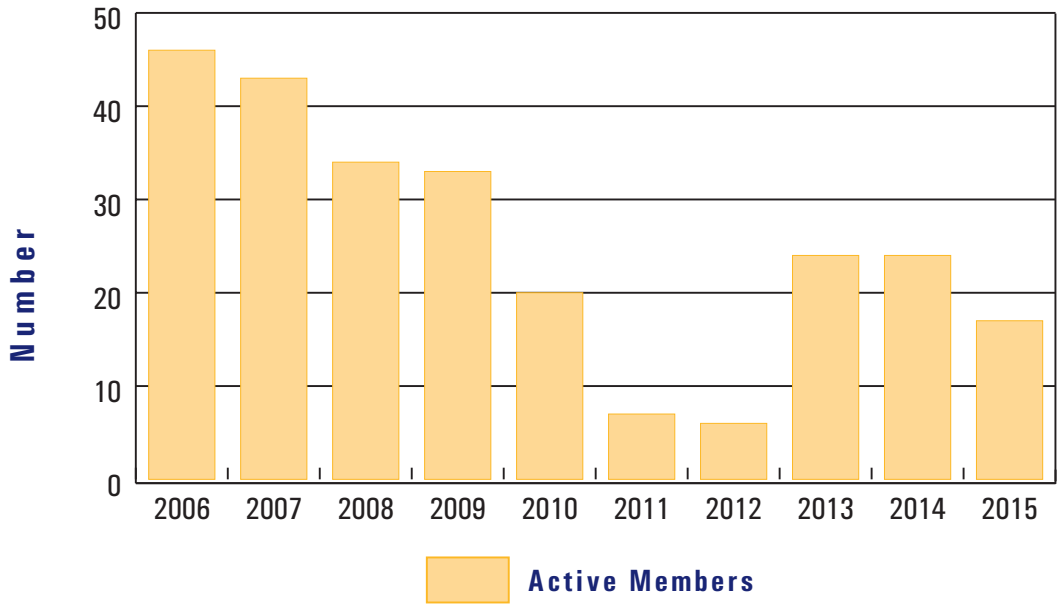
Schedule of Active Members Valuation Data

(dollars in thousands – except annual average pay)

Actuarial Valuation as of June 30	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2006	46	N/A	N/A	N/A
2007	43	N/A	N/A	N/A
2008	34	N/A	N/A	N/A
2009	33	N/A	N/A	N/A
2010	20	N/A	N/A	N/A
2011	7	N/A	N/A	N/A
2012	6	N/A	N/A	N/A
2013	24	N/A	N/A	N/A
2014[1]	24	N/A	N/A	N/A
2015[1]	17	N/A	N/A	N/A

[1]The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.

Total Number of Active Members Per Year



INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

Schedule of Retirants and Beneficiaries

(dollars in thousands – except average annual benefit)

Actuarial Valuation as of June 30	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) in Total Annual Benefits	Average Annual Benefit	Percent Increase/ (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits[1]			
2006	2	$ 12	2	$ 9	39	$ 260	6.2%	$ 6,658	6.2%
2007	6	31	-	-	45	283	9.1	6,298	(5.4)
2008	1	-	2	10	44	274	(3.4)	6,223	(1.2)
2009	17	88	2	2	59	371	35.3	6,281	0.9
2010	5	9	3	27	61	347	(6.5)	5,685	(9.5)
2011	4	22	-	-	65	356	2.6	5,477	(3.7)
2012	2	13	4	20	63	349	(2.0)	5,536	1.1
2013	9	41	4	26	68	364	4.3	5,362	(3.1)
2014[2]	-	-	-	-	68	364	-	5,362	-
2015[2]	1	2	1	1	68	366	0.5	5,377	0.3

[1] *End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.*
[2] *The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.*

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit